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Thesis

THE VIOLIN SONATAS OF HEINRICH FRANZ BIBER

by

ROBERT CURRIER
(A. B. New York University, 1941)

Submitted in partial fulfillment of
the requirements for the degree of
Master of Arts
1955

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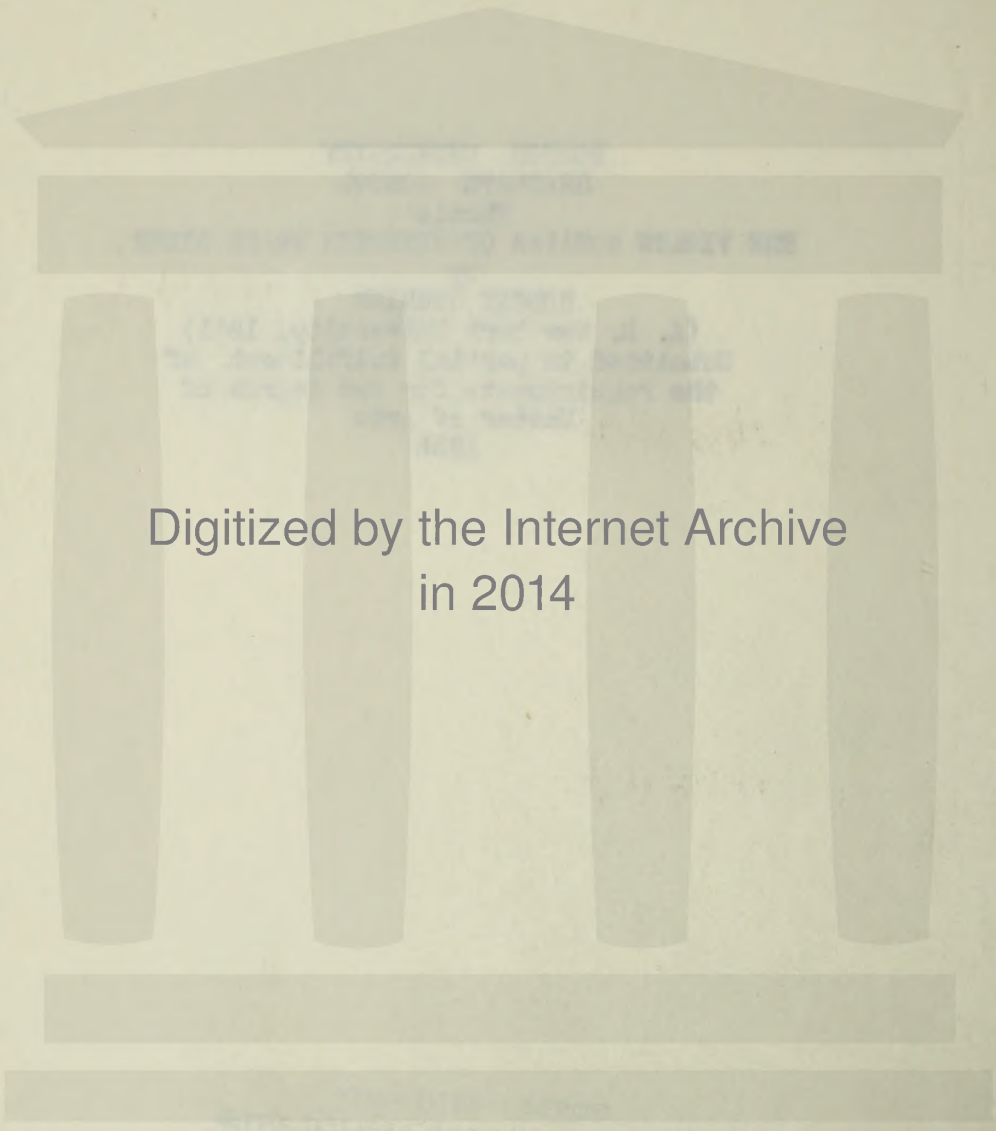

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Approved by

First Reader ..... Karl Geiringer .....

Professor of the History and Theory of Music

Second Reader ..... Hans Nathan .....

Associate Professor of the Theory of Music

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Preface

It was a year ago, while browsing through Curt Sachs' "Anthologie Sonore", that I became interested in Biber. Looking up some of his music in the New York Public Library, I was intrigued to find it written in scordatura. Though I have played the violin since an early age, the idea of using a deliberately mistuned instrument had never occurred to me. I immediately copied several sonatas, and trying them out, found their rather early Baroque quality an additional appeal.

This thesis has grown out of that experience. Surely in an age when composers go to every extreme to invent new bottles for the old wine of music, such unusual music as Biber's can find a response. If the musicologist has validity in society it is to expose to the present such personalities as Biber, largely a forgotten individual, and present his music in a form which is both authoritative and performable. There is at present a dearth of published material on Biber and his music.

Because of the scantiness of authoritative source material, I may have over-personalized, at certain points, my analysis of the composer's style (cf., footnote, page fifty-one). Again, because of my personal interest in scordatura, I may have over-weighted this study with a consideration of that subject. For these possible failings and others, I beg the reader's forgiveness. I respect his right to disagree with my point of view wherever the viewpoint itself has become an integral part of my factual experience.

Abstract

Heinrich Franz Biber was born in Wartenberg, Bohemia in 1644, and died at Salzburg in 1704. He is known to have held two posts during his lifetime, from approximately 1666 to 1670 in a court at Kremsier, Moravia, and from then on at Salzburg. His position at the Salzburg court was repeatedly improved, until, by the time of his death he was not only Capellmeister and Lord High Steward, but also had achieved knighthood.

Biber wrote a considerable quantity of music, both vocal and instrumental. A virtuoso of the violin, his compositions for that instrument are technically complicated. They are of a typically middle Baroque, North European quality - tonally somewhat modal, rhythmically varied and rough, structurally segmented, and melodically diversified.

The majority of Biber's sonatas for solo violin involve the use of scordatura, or abnormal tuning. This practice, which was common during the Baroque period, seems to have been due more to theoretical than to practical considerations. The strings were generally tuned into the key of the piece being performed, and occasionally, in Biber's case, chordal, technical, or coloristic effects not otherwise achieveable, were produced.

Biber's most extensive work for the violin is a set of fifteen sonatas, consecrated to the fifteen Biblical mysteries. Although in the majority of these sonatas, the composer's programatic intentions remain obscure, several of them have a very discernable programatic content. A set of etchings associated with the manuscript are sometimes presumed to provide the programatic source, but in the writer's opinion, there is some reason to suppose that these pictures were a later addition.

HENRICUS I. F. BIBER. CELS.mi AC REI.ma PRINCIPIS ET ARCHIEPI SALISBURG: CAPELLÆ VICE-MAGISTER ÆTAT: SUÆ XXXVI. ANNORUM.

A Biographical Introduction

Appellation

Franciscus Henricus von Bibern. So nannte ihn sein sohn... Das musikalische Wörterbuch heisst ihn Henr. Jean Francescus...

It was in the year 1740 that Mattheson wrote these words. Apparently Biber was little known in Germany thirty-six years after his death, of interest primarily to lexicographers. Johann Gottfried Walther, to whose "Wörterbuch" Mattheson was referring, had, in 1732, given Biber about an inch of space.

As for his name - it remains to this day unclarified. Paul Henry Lang refers to him as Franz Biber, Bukofzer as Heinrich Biber, Grove's Dictionary as Heinrich Franz von Biber. Charles Burney, in his day, called him Henry John Francis Biber. Other names that have been used are Rudolph Biber, Heinrich Johann Franz Bieber, Heinrich Ignaz Franz Biber, and Biber von Bibern. What these differences prove is that Biber has never had an authoritative biographer, someone to have weighed minute facts such as the versions of a name and to have passed his conclusions on to subsequent historians.

The origin of some of these differences is easy to see. Most important documents in Biber's day were written in Latin, and the signatures Latinized to correspond. Thus Heinrich and Henricus, Franciscus and Franz are interchangeable. Biber's second name is more of a problem, there being quite a deviation between Ignaz and Johann. It must be remembered, however, that "I" and "J" are identical in Latin, and that in Biber's manuscripts as well as his published works initials have frequently been used instead of his

full name. Thus the composer's picture as found in the volume of eight violin sonatas published in 1681 (see page 1), is entitled "Henricus I. F. Biber"; and even his death notice lists him simply as "F. Henricus Biber, Choraula celsmi., 60 ann. ad S. Petrum." Since the full name, Johann, is not used in connection with Biber on any contemporary document, and since the composer's own signature attached to the fifteen mystery sonatas for violin is "Henr. Ignat. Franciscus Biber", clearly Ignaz takes preference over Johann as the more authoritative second name.

The use of the full name, however, is both awkward and unnecessary. Biber, himself, did not always use his second name. In a plea to the Austrian government in 1681 he signed himself, "Heinrich Franz Biber, in Boheimb zu Wartenperg geburtig." And a notice of promotion dating from 1679 also refers to him as "the dear and faithful Heinrich Franz Biber."

In 1690, Biber was knighted, but since this was after a great deal of his creative work had been accomplished, and since the prestige value of a "von" is not felt in this century, there is no need for us today to adopt the cumbersome appellation, von Bibern.

His name, then, is Heinrich Franz Biber. *

Origin

Wartenberg, Bohemia, has never been an important town. It is not to be found on maps of ~~the~~ sixteenth and seventeenth century

*There is no reason to suppose, as the above confusion might suggest, that there was more than one composer at this time going under the name, Biber.

Europe, and Mattheson referred to it as "Warta, Warthe, oder wie es sein Sohn (Carl von Bibern) schreibet - Warthenberg," thus in a hazy way confusing the town with a Polish-German river. Nor is it to be confused with Wartburg, of Tannhauser fame, located some two hundred miles West northwest.

It is located ten miles northwest of Reichenberg, and has its back against the Riesenberge, or Giant Mountains, which form a barrier as high as five thousand feet between Bohemia and Silesia to the Northwest. Reichenberg, one of the larger cities of Bohemian territory today, dates back to the fourteenth century at least, and seems always to have had a large German population. It was at Wartenberg that Heinrich Franz Biber was born on August 12, 1644.

Bohemia was in bad shape just then. Nowhere did the Thirty Years' War cause more devastation than in Bohemia. The war both started and ended in the vicinity of Prague, about seventy miles from Wartenberg. At the famous battle of the White Hill, in 1620, the free state of Bohemia had lost whatever it had left of national sovereignty, and came under the rule of the Hapsburgs. It was then torn piecemeal by the complex of hostilities produced by two unamalgamated populations - Germans and Czechs - and two irreconcilable ideologies - Catholicism and Protestantism. The country was placed under the domination of two Jesuits as executants for the Austrian emperor, Ferdinand. There followed a series of anti-protestant edicts. By 1624, not only had all clergymen except Catholics been expelled, but it was no longer possible for a protestant layman to be a citizen, to own or inherit land; and no birth, marriage, or burial was permitted save through Rome. Then came the supression of the University of Prague, and the destruction of Bohemian literature. It is estimated that during

this period, the population of Bohemia was reduced from two million to seven hundred thousand. *

Biber's family must necessarily, then, have been Catholic. His father has been variously called a forester and a guncharger in the service of a Count Liechtenstein-Kastelkorn, whose estate was nearby. His occupation does not in any case rule out the possibility of his having been a musician, since in that day servants were frequently employed in a dual capacity.

Life (1544-1704)

Heinrich Franz was four years old when the treaty of Westphalia was signed. It was more than a century later that Charles Burney travelled through ~~Xxx~~ Europe and noted the musical habits of its people. The applicability of his remarks to Biber's childhood environment is therefore somewhat limited - though a century then did not see as much change as a century today. He travelled straight through Bohemia in a boat - a rough hewn log barge which was to be dismantled as lumber at its destination. He commented extensively on the prevalence of music among the peasants, who, he said, not only sang folk songs in the streets habitually, but invariably sang them in parts. He reports that at that time every child was taught the violin in the classroom of his school. However he found the general cultural level abominable (to the sensibilities of a cultured Englishman) and complained bitterly in his diary that there was no edible food in the entire country, that the people were filled with superstition, that

* New International Encyclopedia

his living quarters (he had a special hut built for himself on the deck of the barge, while the other passengers huddled together in the open air) were quite intolerable.

That Biber learned to play the violin in such a classroom as Burney describes is conceivable, but does not lend itself to proof. He may have had a local teacher by the name of Weigant Knoefel.* It also has been suggested that Biber was a student of Johann Heinrich Schmeltzer, fifteen years Biber's senior, a violin virtuoso and composer in the Imperial Court at Vienna. Although there is no direct evidence of Biber making the two hundred mile trip to Vienna, circumstantially it is entirely possible; certainly Biber's music strongly suggests the influence of that city (see below).

In 1666, at the age of twenty-two, presumably through the interest of Count Liechtenstein-Kastelkorn, the employer of Biber's father, Biber went into the service of the First-bishop Karl Liechtenstein-Kastelkorn of Olmutz (and Kremsier), Moravia. This town is located roughly half way between Biber's home town of Wartenberg, and Vienna. Biber's exact duties and accomplishments at this court are not known; Paul Nettl ascribes a considerable array of compositions, both sacred and secular to this period, yet most of them are dated after his departure must surely have taken place.

The exact date of his departure is disputed as well. Sometime after Biber's death, his son, Anton Heinrich, in a petition to the Archbishop of Salzburg, stated that his father had served the Salzburg court for thirty-four years. Since he died in 1704 at the age of sixty,

* Paul Nettl, in suggesting this, is quoting a Reichenberg author, Wilhelm Feistner. (See Vorwort to the "Serenada fur funf Streich-instrumente", Nagels Musik Archiv.)

he must then have left Kremsier by 1670. However, Guido Adler, from a study of the manuscripts in the Kremsier archives, deduces that Biber must not have left there until 1673 or 1674. And at the same time Nettl states that in 1672 he married Maria Weiss, the daughter of a Salzburg citizen and merchant. In any case we know he was still in Kremsier as a composer in the year 1670 because his "Balletti Lamentabile" is signed "del Signore Henrico Biber, composti cremsirij 1670." His leave-taking is mentioned by the bishop of Olmutz in a letter to Johann Heinrich Schmelzer (thus proving that Schmelzer and Biber at least knew of each other.) The letter stated that Biber had left "Qualitatis et conditionis insalutato hospite" (without permission.)

He went to Tyrol where he stayed with the violin maker, Jacobus Stainer, in Absam (from whom Biber had ordered violins while still at Kremsier.) The Olmutz bishop instructed his deputy in Tyrol to capture Biber, a plan which apparently was never carried through.

His next post was with the court at Salzburg, where he stayed to the end of his life. He was first in the service of Maximilian Gandolph, who was archbishop from 1668 to 1687. Biber's duties in the beginning are not known; if he was ever a violin teacher it must have been then, for that post was held by one Ernst Joseph from 1677 to 1687, and by Johann Rogginger from 1687 to 1710.

In 1677, Biber was appointed instructor to the boys destined for the choir of the cathedral. In 1679 his position was advanced to vice kapellmeister and "cubicularius."* This must have been the

period of his greatest achievement, when he became known through Germany, France, and Italy. The picture of him which appeared with the publication of his eight violin sonatas in 1681, depicting him in his thirty-sixth year (see frontispiece), presents him as kind and intelligent. It also displays a gold necklace, either the one presented to him in 1676 by Leopold I, emperor of Austria, or the one he received from Ferdinand Maria of Thuringia.

Like Haydn, but rather unlike Bach, Biber must have had an affable disposition, so that he maintained amicable relations with his superiors; at least his stature continued to increase. In 1685 he became Capellmeister and Lord High Steward, with the privilege of bringing food to Maximilian's table.* Adler feels that he did not actually serve table, but had that economic status. Mattheson, however, was in a better position to judge. In the dedication of his 1681 sonatas, Biber remarks jokingly, 'now I can serve you with my hands as well as my feet.' Evidently his relationship with Maximilian was easy-going.

His exact financial status is difficult to ascertain in terms of the present. Nettl says that he drew a monthly salary of about $60, a bottle of wine daily from the archbishop's cellar, four rolls, and fire wood, all in addition to his board. He was in charge of forty-five musicians as well as twelve to eighteen choir boys.

In a plea to Leopold, emperor of Austria, dated May 2, 1681, Biber asked for the privilege of knighthood. Schmelzer had been so knighted on June 14, 1673. His request was turned down, but a second attempt was successful, and on July 17, 1690, he was knighted, his

* "...Wirlich hochfurstlichen Salzburgischen Truches, der das Essen auf die Tafel setzet, und Capellmeister gewessen," are Mattheson's words. See bibl.

arms being a quartered shield; the first quarter a field, vert, and ~~xxxxxxxxxxxxxxxx~~ over it an azure sky with clouds; the second and third quarters, in gules on vert, a beaver on a hillock; while the fourth shows a stream, sky and clouds; the crest depicts a beaver, proper, supporting between its paws a robled score. The use of the beaver twice is of course a play on the composer's name.

In 1687, Maximilian Gandolph died and was succeeded by Johann Ernst of Thun, who remained for the duration of Biber's life. On March 7, 1704, Biber gave official approbation to vice kapellmeister Piechteler, and to the organists and valtes J. B. Samber, R. A. Khurschner, Hohann Knott, and J.B. Maringele. Apparently he knew that he was about to die. His death notice is dated May 3 of the same year, and on May 4 he was buried at St. Peter's Cathedral.

Biber had at least two sons and perhaps a duaghter. Karl Heinrich von Bibern continued in his father's footsteps, became vice kapellmeister at Salzburg on November 2, 1714; kapellmeister, October 4, 1743; Lord High Steward, June 26, 1746. Many of his compostiions remain in manuscript in the Domarchiv at Salzburg. In 1744 Leopold Mozart became violin instructor and concertmaster under von Bibern, thus completing a link from Biber to Mozart.

Anton Heinrich von Bibern was for a time "Musice Magister" at Brunn,but managed somehow to lose the position. In a plea to the archbishop of Salzburg he said that it was a wage of war; he had been a military man.

At the library, "Benedictinerinnen am Nonnberg," in Salzburg there is a song book by Biber dated 1694 and dedicated to Maria Magdalena de Bibern, who could have been either Biber's daughter, or possibly a grand-daughter. The book consists of twenty loose pages

containing instructions on notation, exercises, etc.

Biber's petitions to the government are to be found in the Archiv des Ministeriums des Innern, in Vienna. Petitions of his sons are in the General-Einnehemer und Hofzahlamstsacten im Regierungs- und Landesarchiv in Salzburg. The court proceeding of the Landarchiv also contains some petitions about real estate by Biber.

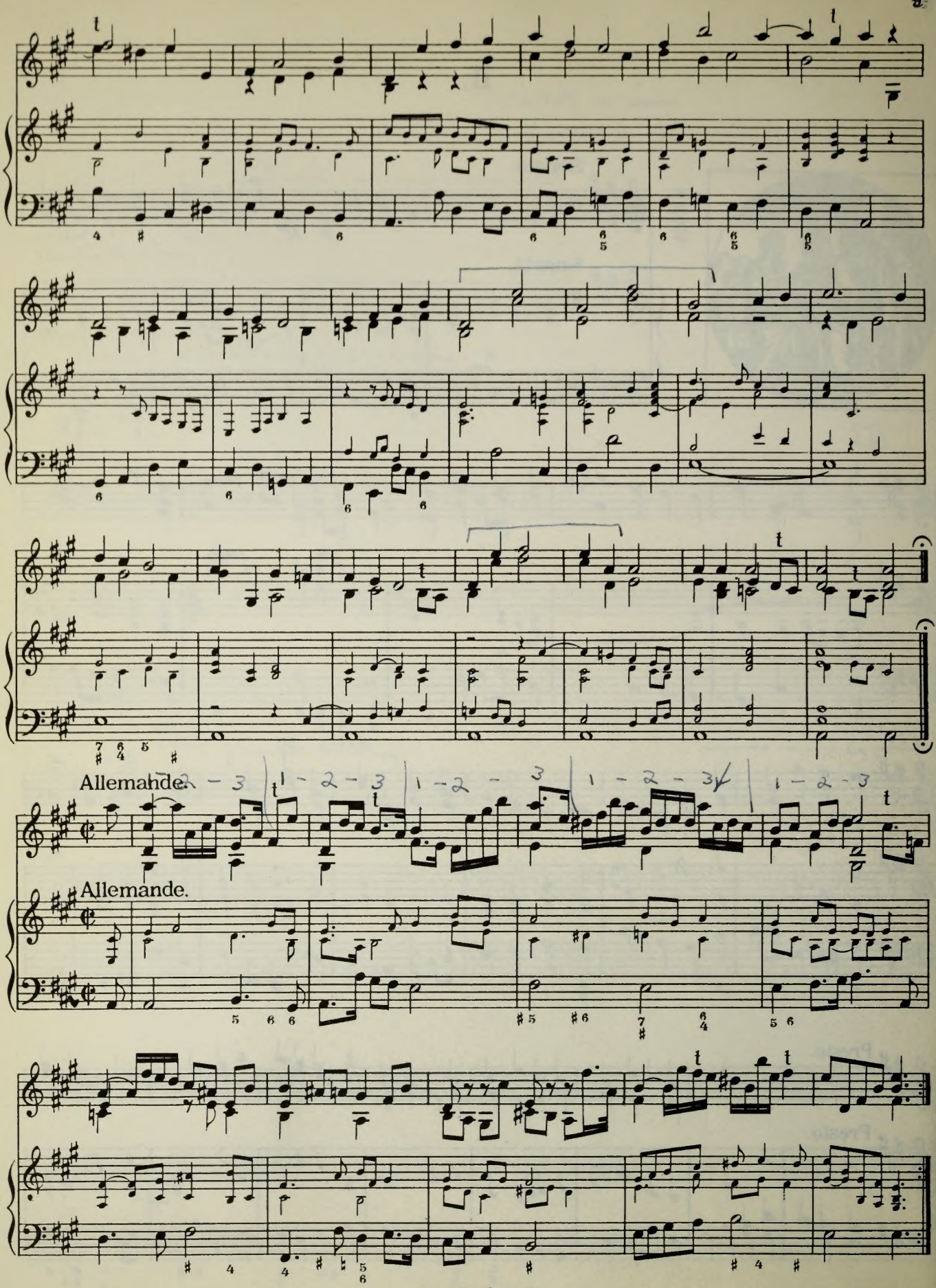
Illustration

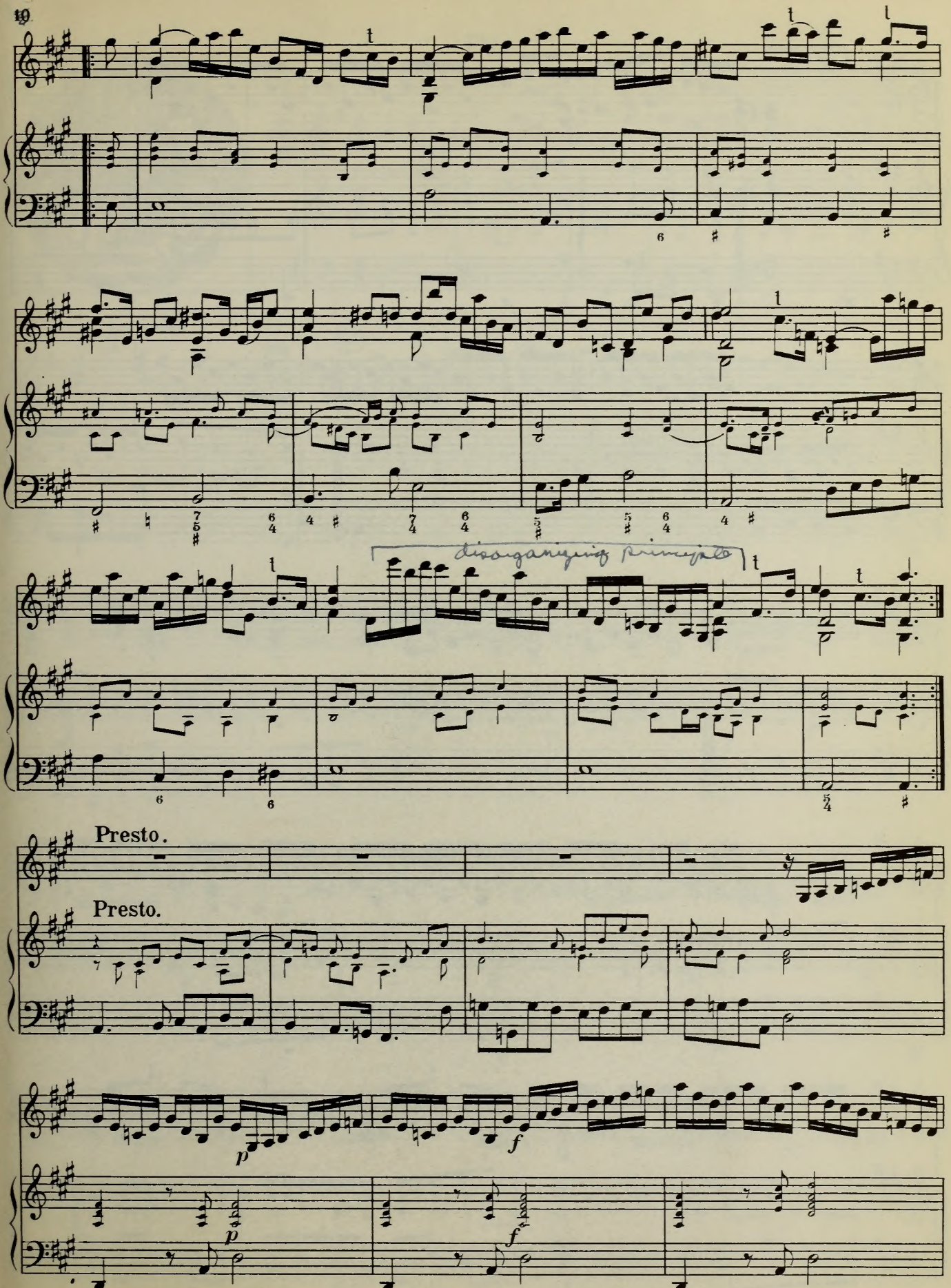
The following sonatas of Biber, to which frequent reference will be made in the ensuing pages, are all taken from the Denkmäler der Tonkunst in Oesterreich, Vol. XII, ii. The title of each sonata is indicated only by the pictures, and by the dedication to the fifteen sacred mysteries:

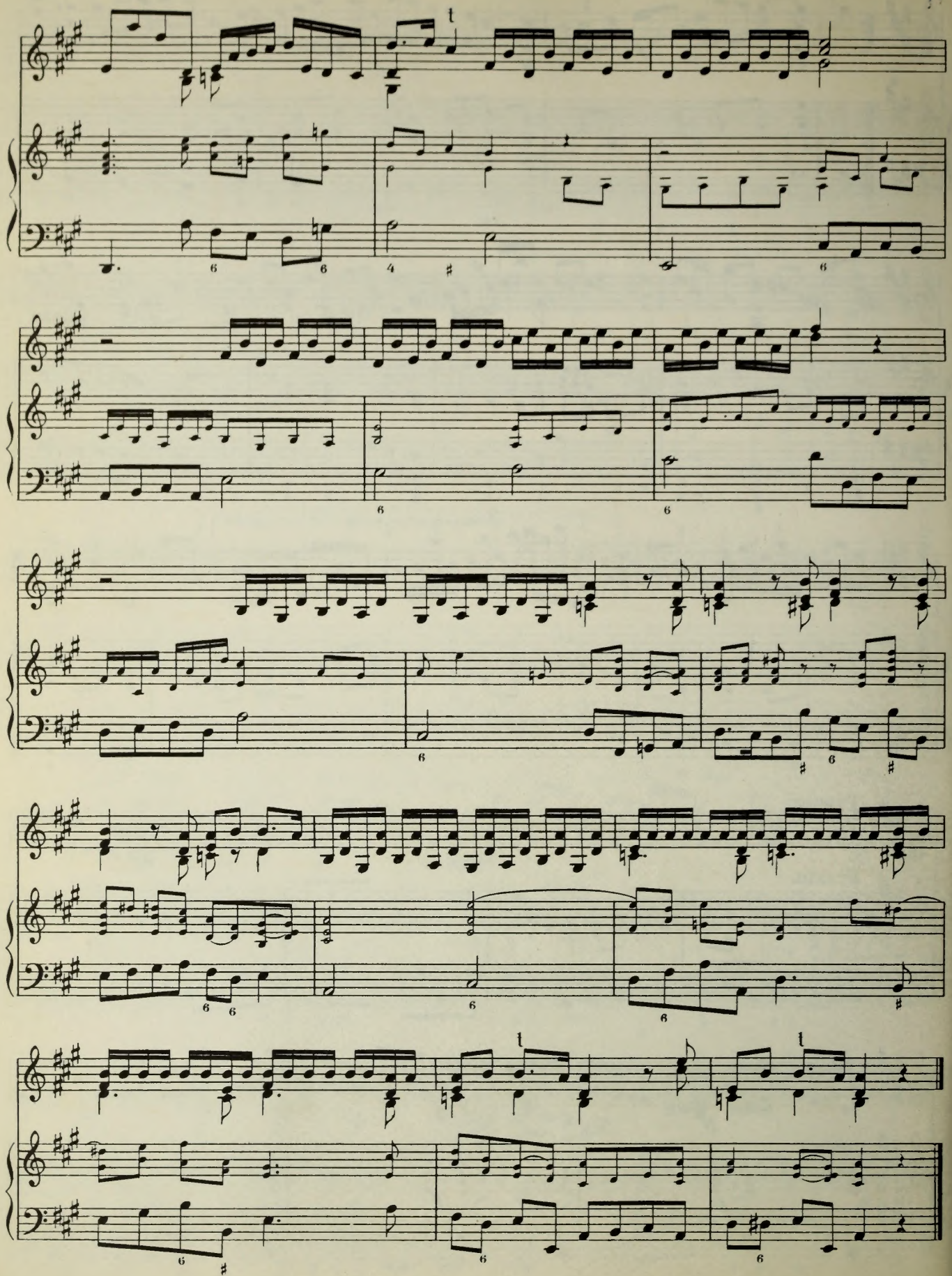
Number	II,	page	fifteen	- Magnificat
"	IV,	"	nineteen	- Presentation
"	VI,	"	twenty-three	- Agony
"	X,	"	twenty-eight	- Crucifixion

II.

~~~ = Motiv I

× = Motiv II

Sonata.

Sonata.

Motiv III

Presto.

Presto.
~~~


Allemande.
1 - 2 - 3
1 - 2 - 3
1 - 2 - 3
1 - 2 - 3
1 - 2 - 3
Allemande.

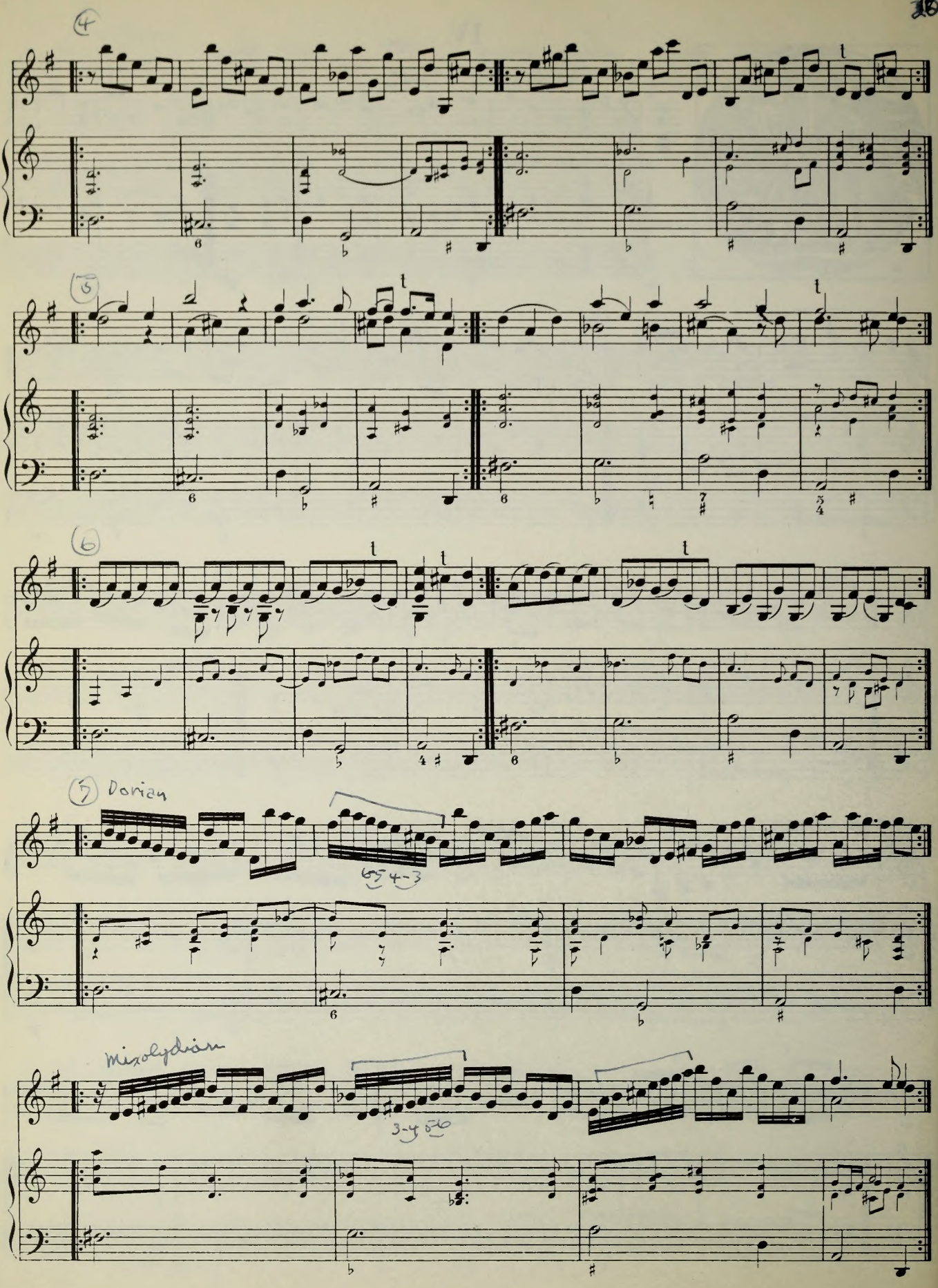

disorganizing principle
Presto.
Presto.
p
f
p
f

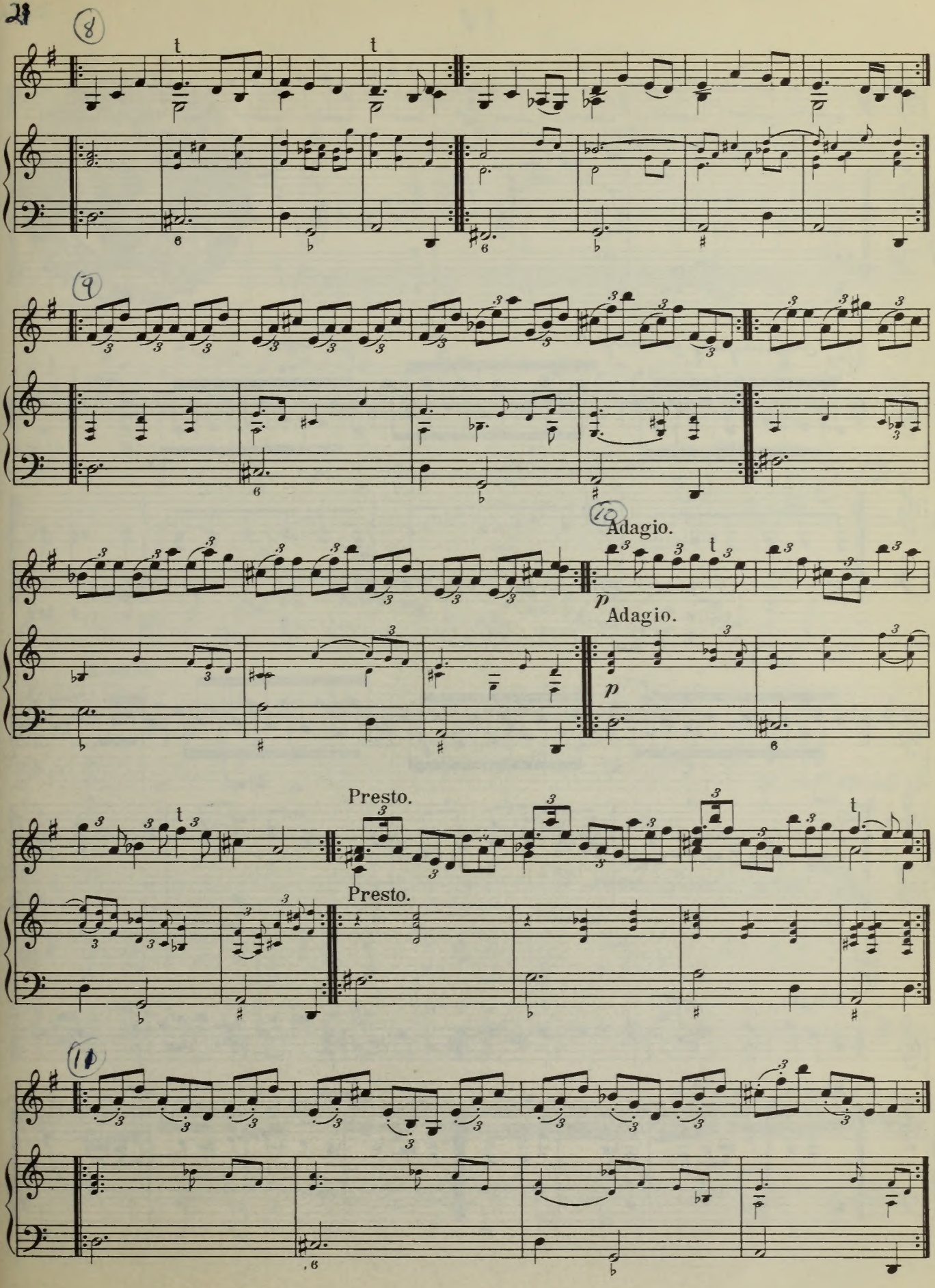


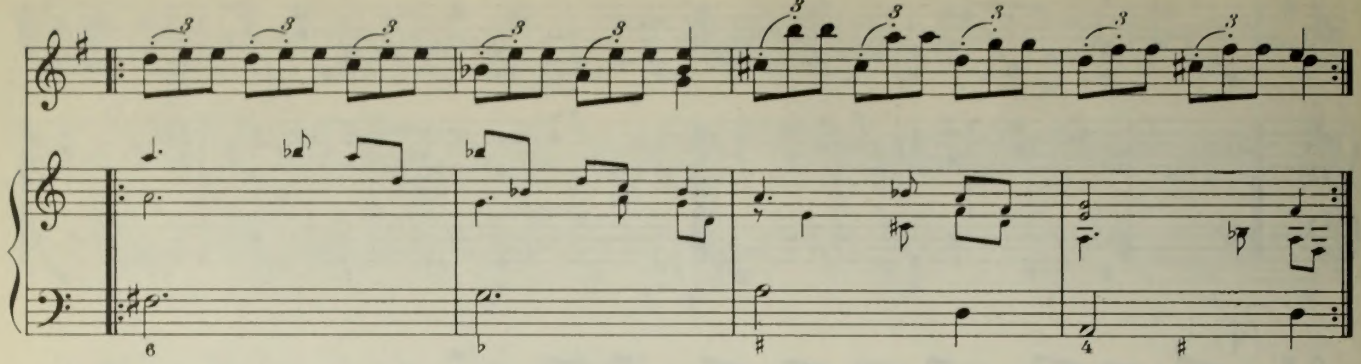
IV.

Ciacona.

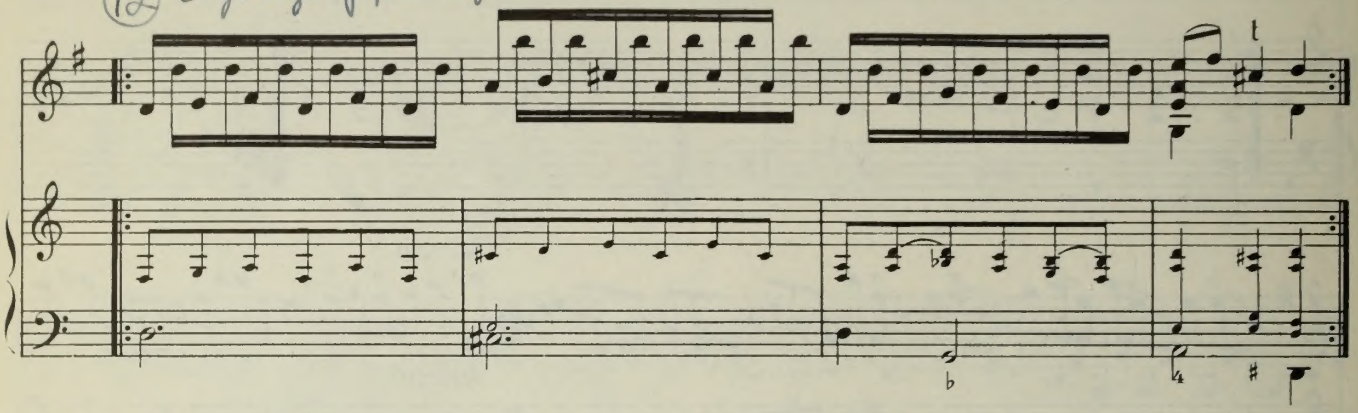
Ciacona.

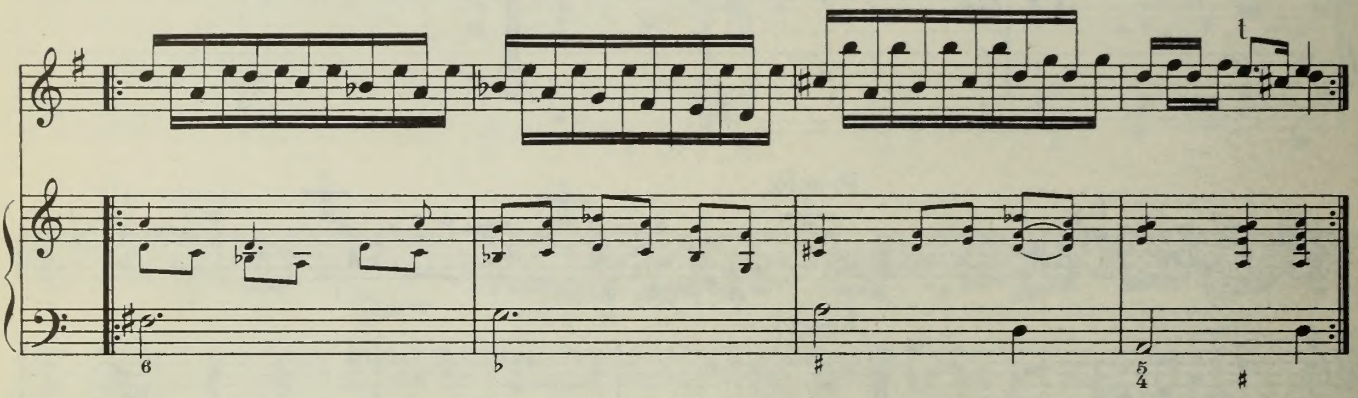

4
5
6
7 Dorian
Mixolydian


(8)
(9)
(10)
Adagio.
Adagio.
Presto.
Presto.
(11)



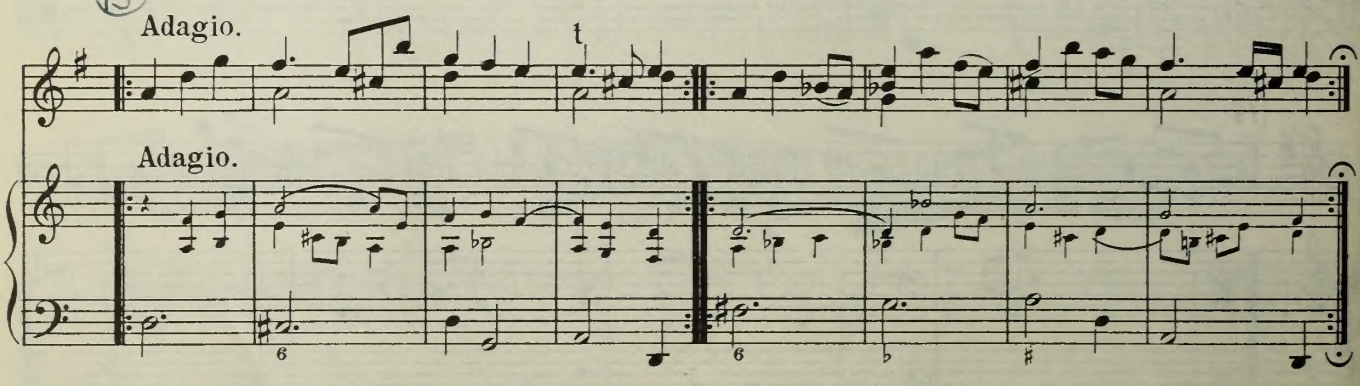
(12) organizing principle





(13)

Adagio.



Adagio.

VI.

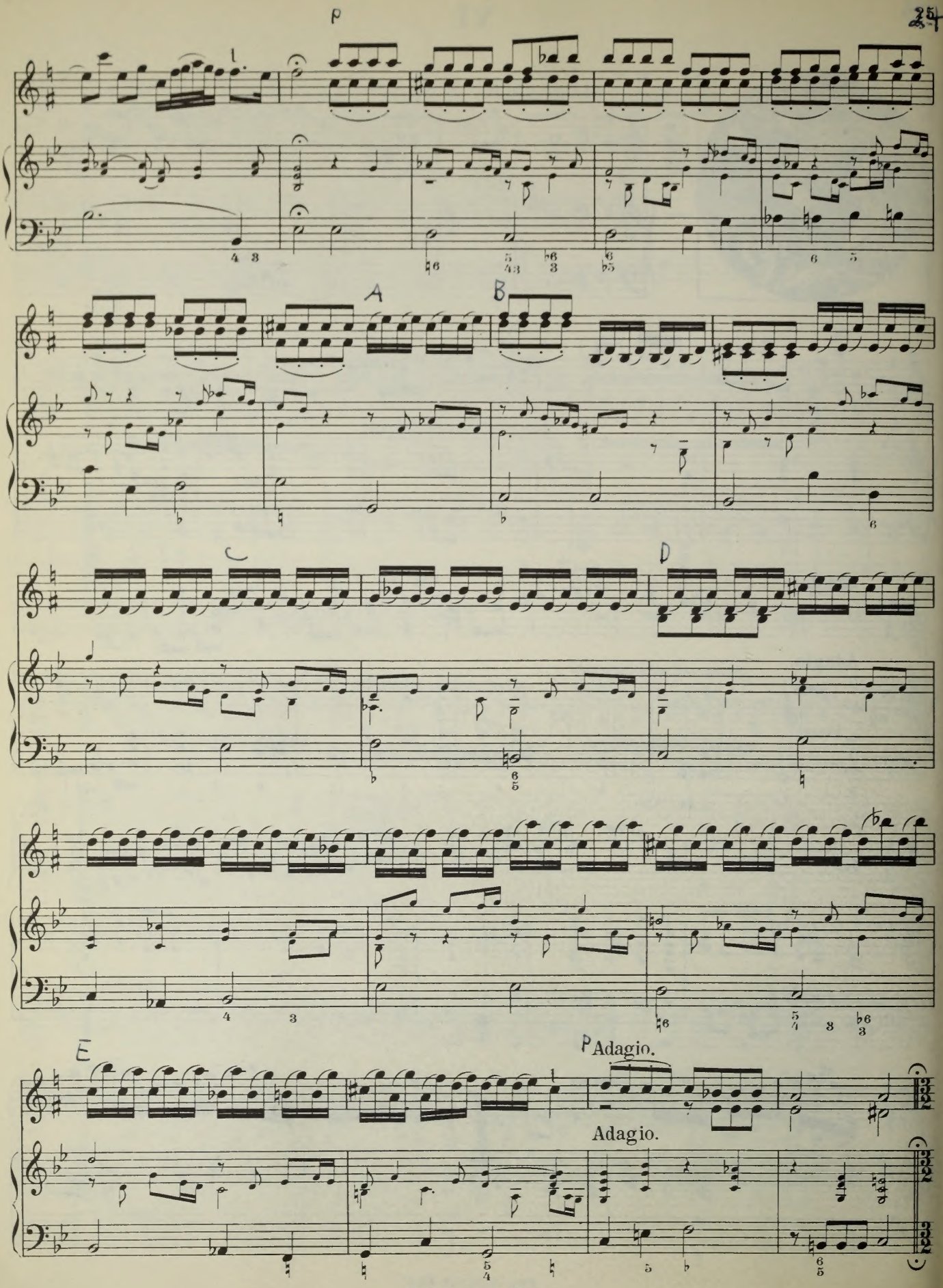
Lamento.

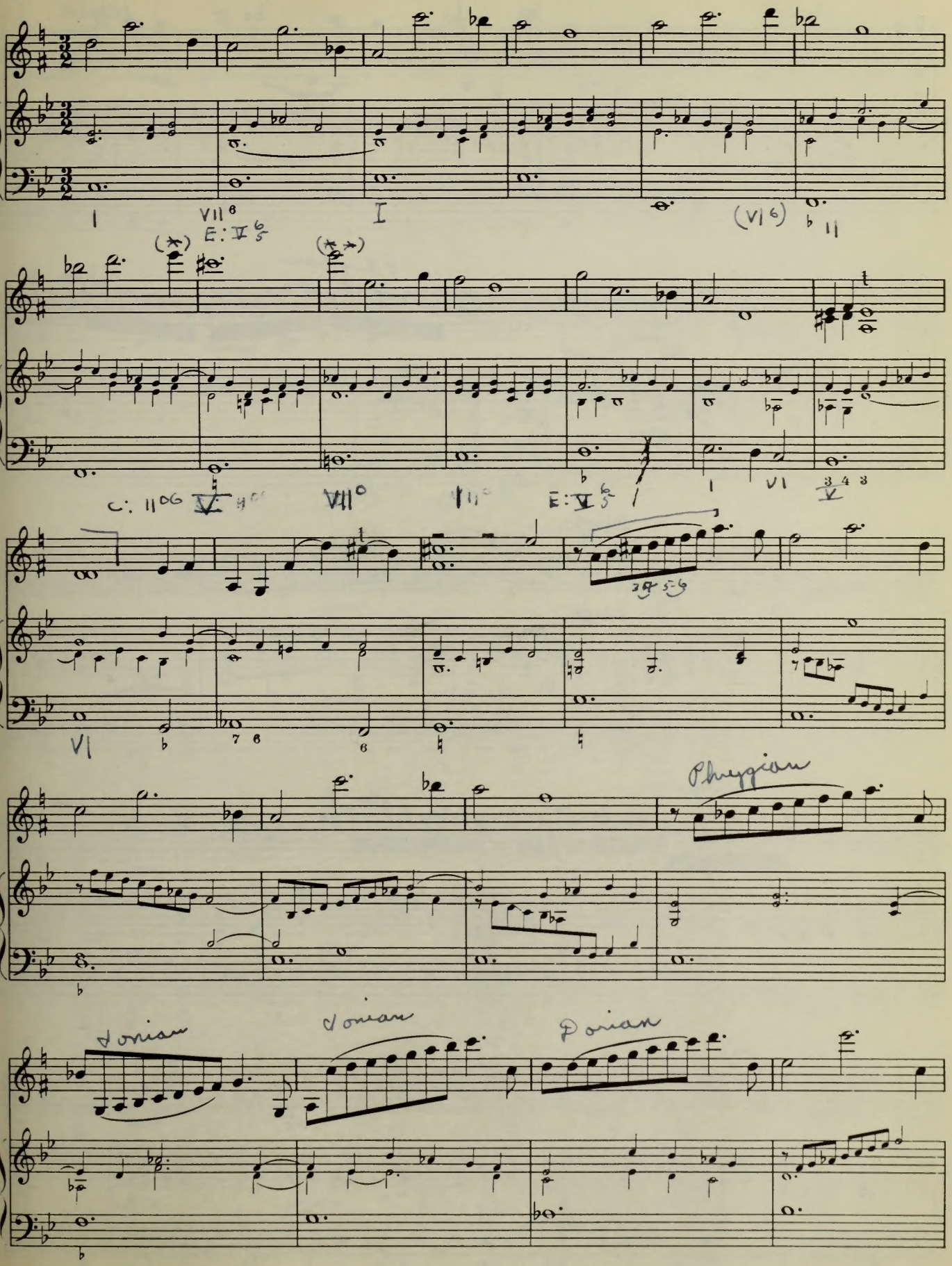
Adagio.

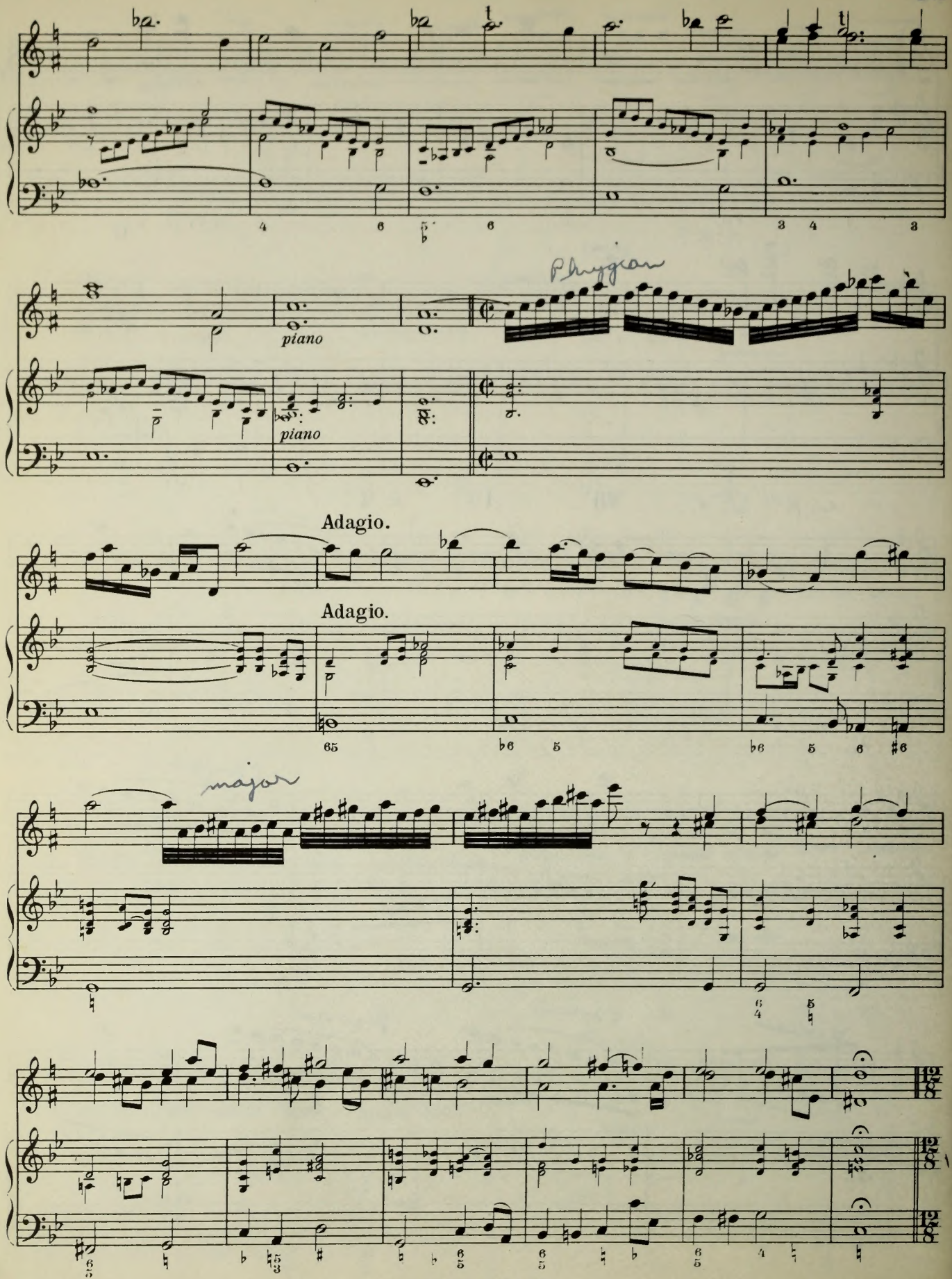
Adagio.

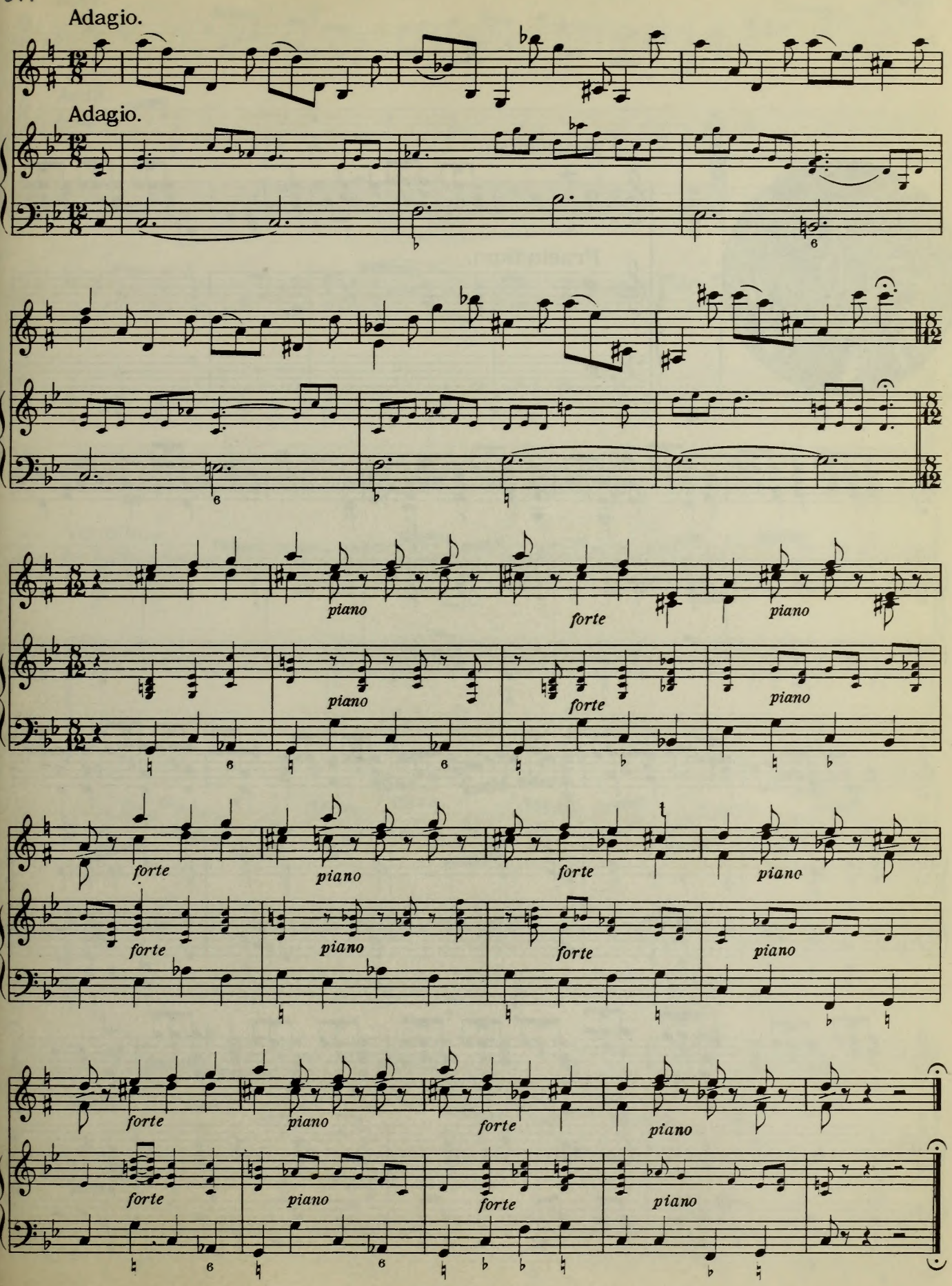
Presto.

Presto.


p
A
B
C
D
E
p Adagio.
Adagio.


Phrygian
Ionian
Ionian
Dorian


piano
piano
Adagio.
Adagio.
major


Adagio.
Adagio.
piano
forte
piano
forte
piano
forte
piano
forte
piano
forte
piano
forte
piano
forte
piano
forte
piano
forte
piano
forte
piano

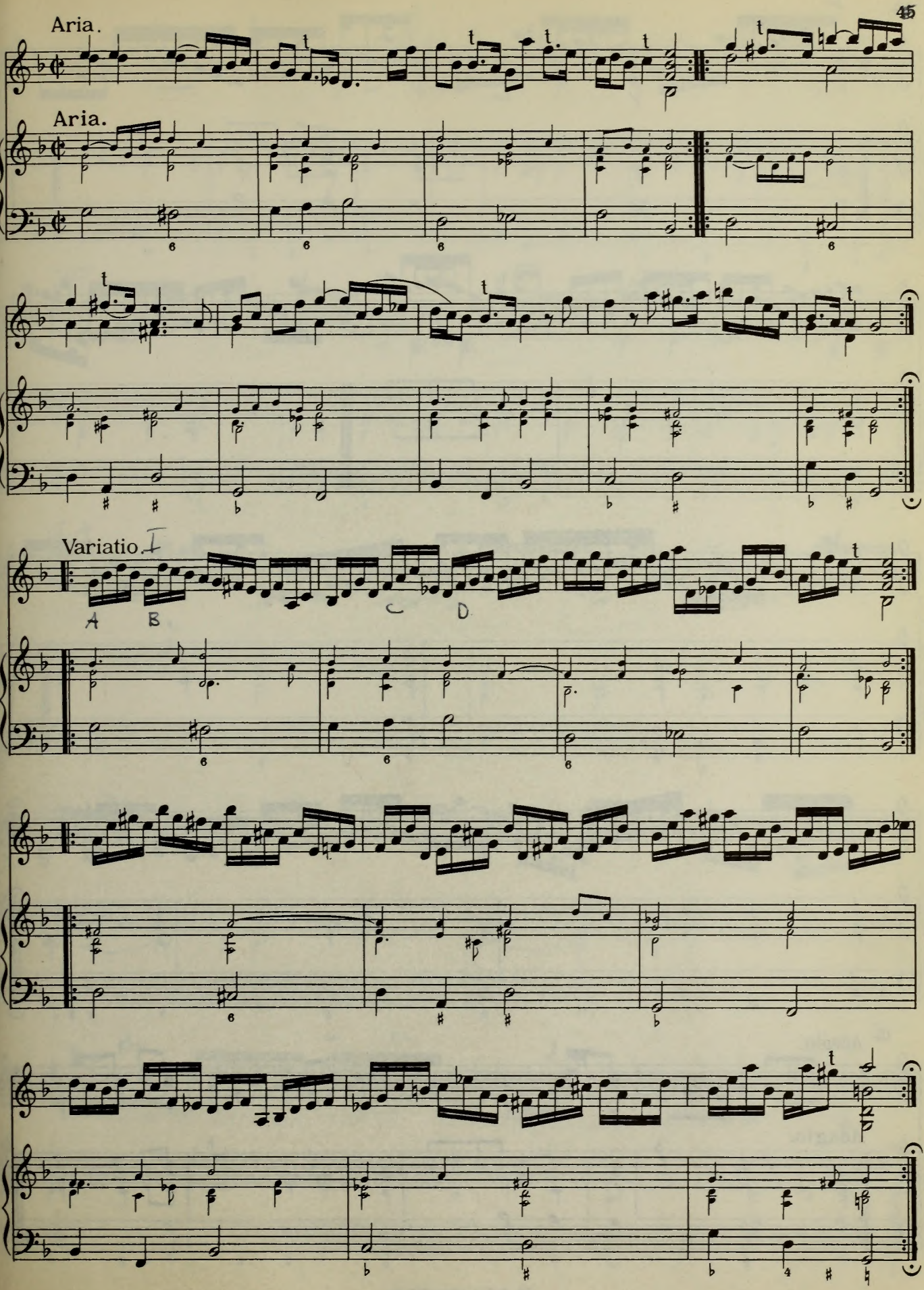
X.

Praeludium.

Praeludium.

piano

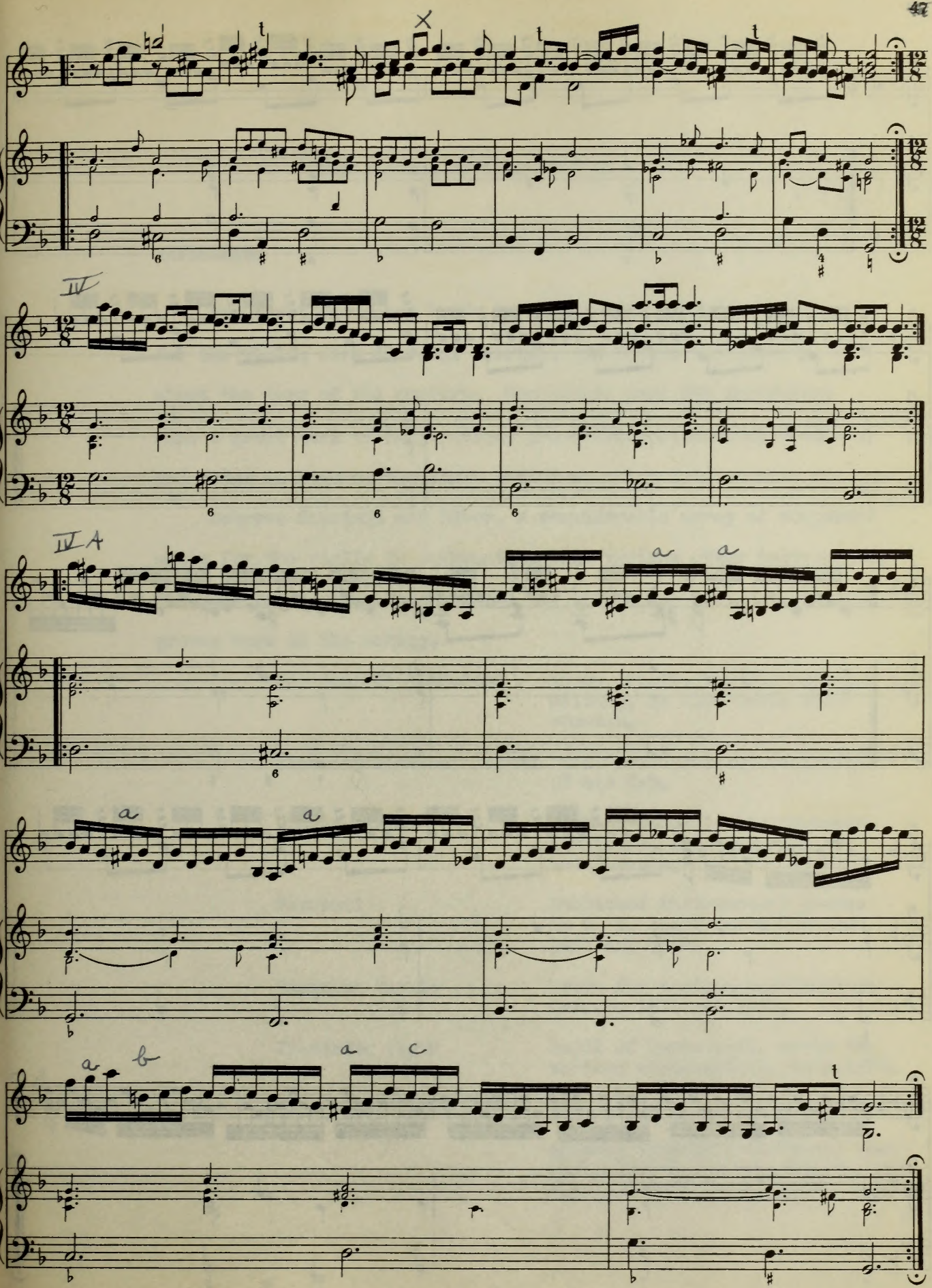
piano

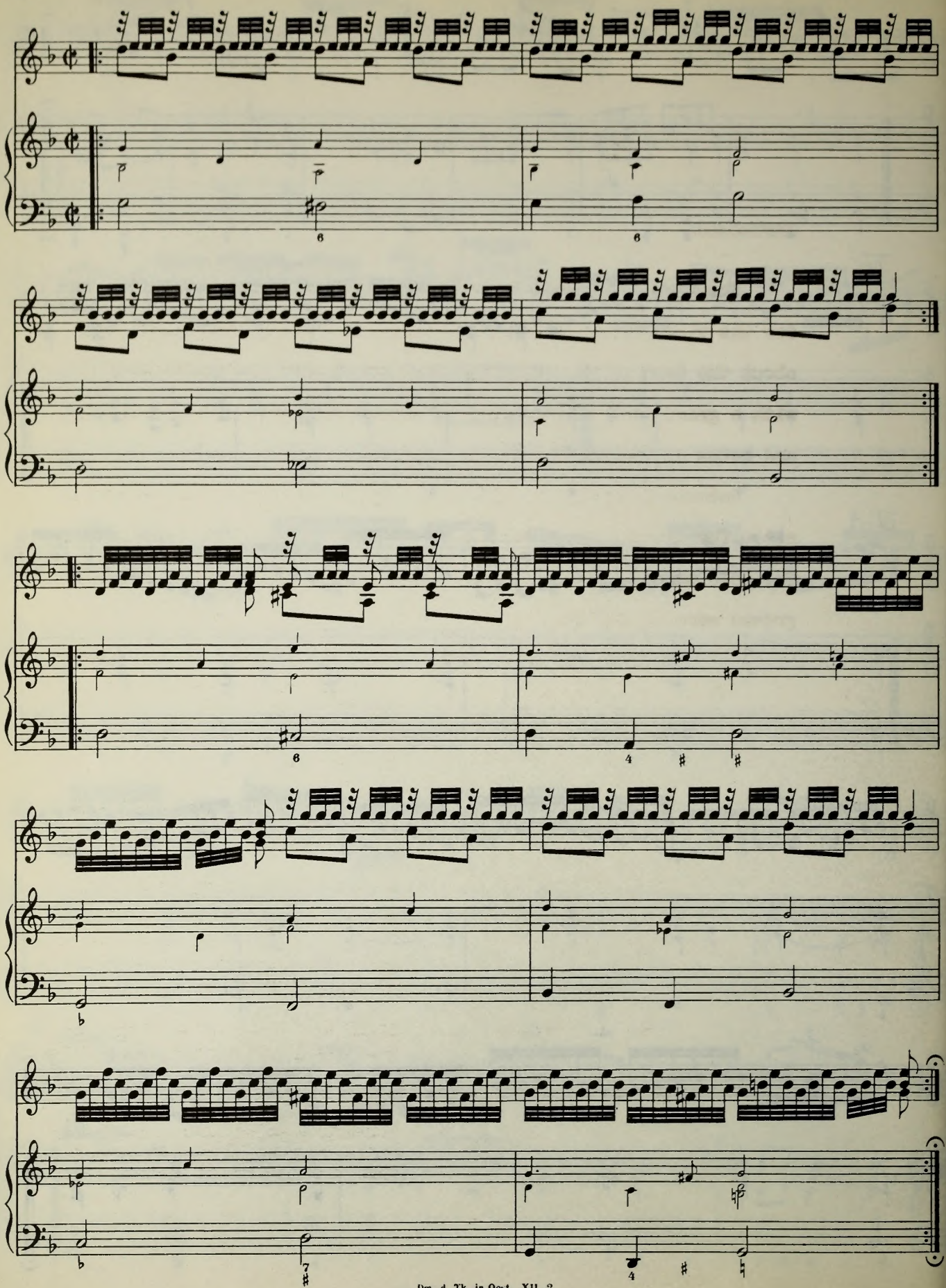

Aria.
Aria.
Variatio I.
A
B
C
D

II

III Adagio.

Adagio.


IV
IV A



The Sonatas as Compositions

Influences

The first composers known to have written music expressly for the violin were Giovanni Gabrieli and Claudio Monteverdi, at about the turn of the century. Monteverdi used the instrument with a great deal of imagination, proscribing pizzicato, tremolo, and notes as high as the sixth position.

Between Gabrieli and Biber, a considerable array of composers wrote for the violin in combination with various other instruments. The solo sonata, the trio sonata, the string quartet, the concerto grosso were in the making.

Frescobaldi	1583-1643	Known chiefly for his keyboard writing, he also wrote solo sonatas.
Giovanni Fontana	-1630	Considered greatest violinist of his day.
Biagio Marini		Fontana's pupil; his Romanesca considered first example of solo sonata.
Possenti		Published instrumental pieces in 2, 3, and 4 parts between 1623 and 1628.
Tarquino Merula		Wrote for various combinations between 1615 and 1628.
Francesco Usper		Pupil of Monteverdi, wrote for various combinations, 1614-1627.
Gregorio Allegri	1582 - 1652	Wrote various instrumental pieces. Leopold I of Vienna took pains to acquire his Misere, till then coveted by pontifical chapel.

Carlo Farina	Born in Mantua, violinist to court of saxony, Dresden. Wrote technical solos, including "Cappriccio Stravagante," using double stops, harmonics, pizz., col legno. Five books of dances published at Dresden, about 1630
Nicolaus a Kempis	Wrote solo sonatas and works for 1-5 instruments, published at Antwerp (sic) between 1644 and 1647
Marco Uccellini	Wrote spectacular violin solos, going to sixth position. Toured Europe as soloist. Publications in Italy and Antwerp, 1639-1669
Massimiliano Neri	Sonats for 3-12 instruments appeared from 1644-1651
Giovanni Legrenzi 1625-1690	Church sonatas appeared 1654-1677
Froberger 1616-1667	Student of Frescobaldi, toured Europe, known chiefly for keyboard writing. Court organist at Vienna
Johann Kaspar Kerll 1627-1693	Studied in Vienna and Italy, wrote instrumental canzonas, serenatas, etc. as well as choral and keyboard music
Johann Heinrich Schmelzer 1630-1680	Violinist and kapellmeister at court of Leopold I in Vienna. Wrote many balletti for operas, as well as violin solos. Suggested as Biber's teacher

The above list, which makes no pretension at completeness, most conspicuously omits Purcell and the English school of instrumentalists, as well as Sweelinck and the other "S's," all of whom preceded Biber. Considering the political situation in Europe during the seventeenth century, clearly south European influences would have been greater on Biber than those of the West and North. As a matter of fact there was a considerable exchange of musicians between Italy and the Hapsburg Empire. Not only Froberger and Kerll, but many other European musicians studied in Italy, while Italian musicians spread as far

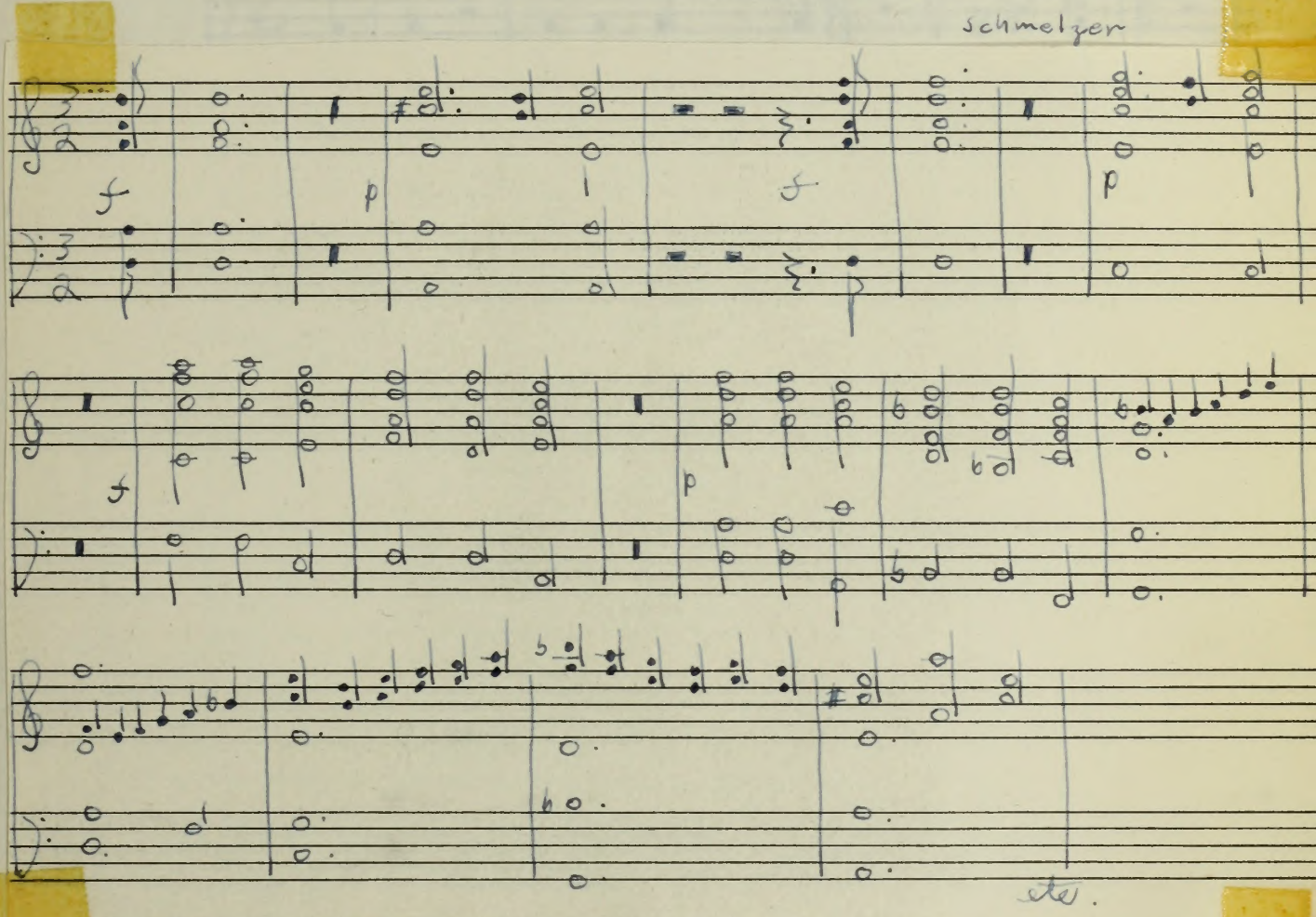
as London and Hamburg. They were most concentrated, however, in the area of Vienna. Between 1675 and 1750 (which is a little later than the period here under consideration) there were, according to Lang, 112 Italian composers in Vienna, 41 in Dresden, 19 in Prague, and 13 in Salzburg. It was not necessary for Biber to go very far afield to receive Italian influence, and it is not surprising that his music displays the echo effects of Gabrieli and the "quilt canzona" form (to use Bukofzer's phrase) developed by Frescobaldi and others. Yet at the same time it is also true that Biber's music bears a not inconsiderable resemblance to that of Buxtehude, his northern contemporary (1637-1707).

It is from musicians near at hand that we would expect the most direct influence. Of these, Farina of Dresden and Schmelzer of Vienna (see list above) stand out as being not only composers but also, like Biber, violinists of uncommon ability. Although Farina antedates Biber considerably, Biber must certainly have known of him since his compositions had been published.

Biber's compositions show a close resemblance to those of Schmelzer. They both wrote balletti, serenatas, and violin solos with and without other instruments. They both wrote commonly for a mixed consort of strings, usually two violins, a violoncello and a viola da gamba, plus a continuo part with violone. They both used scordatura (but so did Nicolas Adam Strungk, who originated in Dresden), and they both used the same movement names - allamande, aria, courente, intrada, retirada, ciacona, canzona. And they both combined the dance movements of the sonata da camera (allemande, courante, etc.) with adagio-allegro (sonata da chiesa) movements in the same composition - but Schmelzer appears to have done this less than

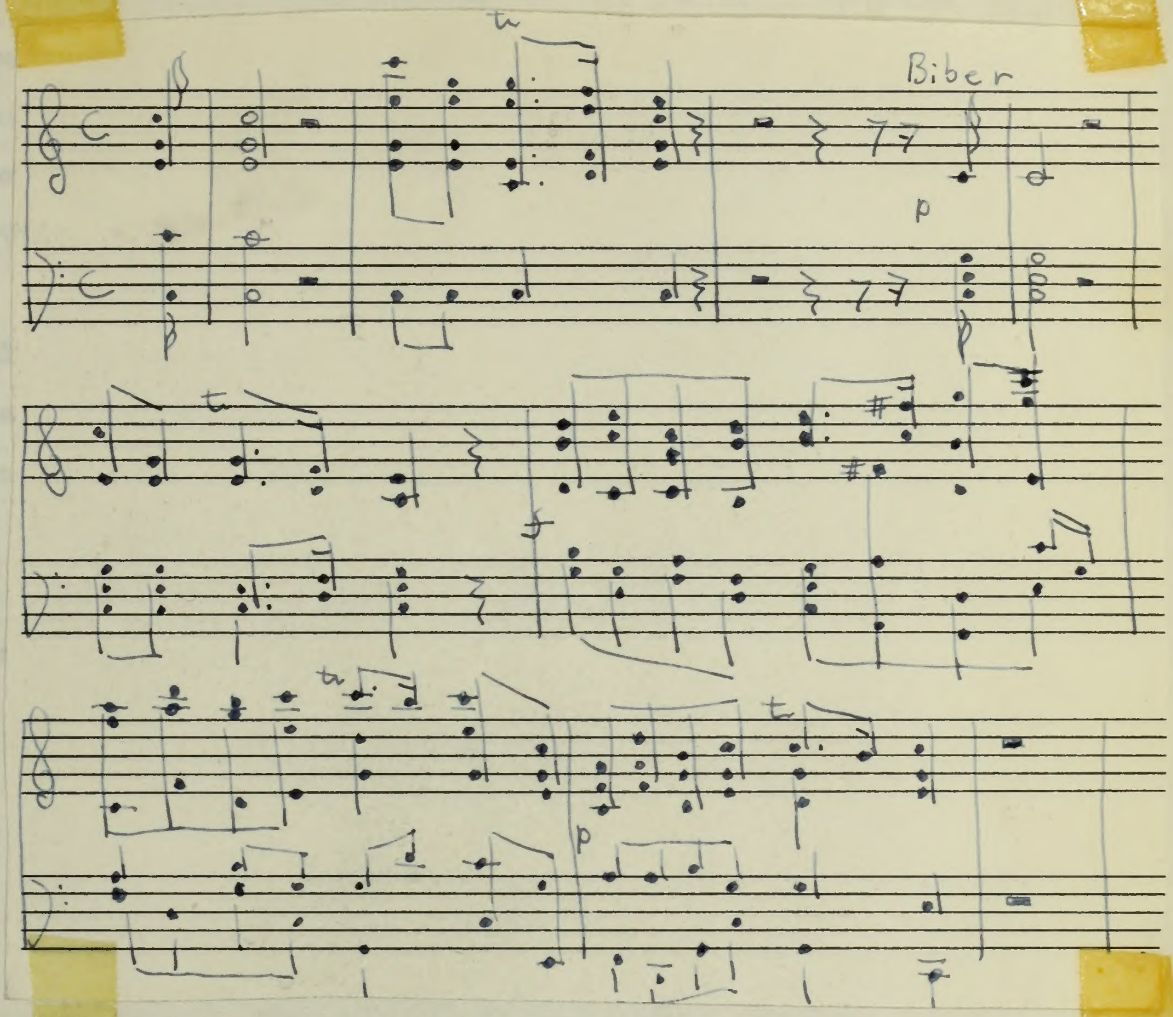
Biber.

In 1666, Schmelzer wrote a serenata which opens with a series of dramatic pauses, with all five stringed instruments silent at once. This would seem to be a rather unusual effect for that day.



DTÖ, Vol. XXVIII, ii. Reduced from score.

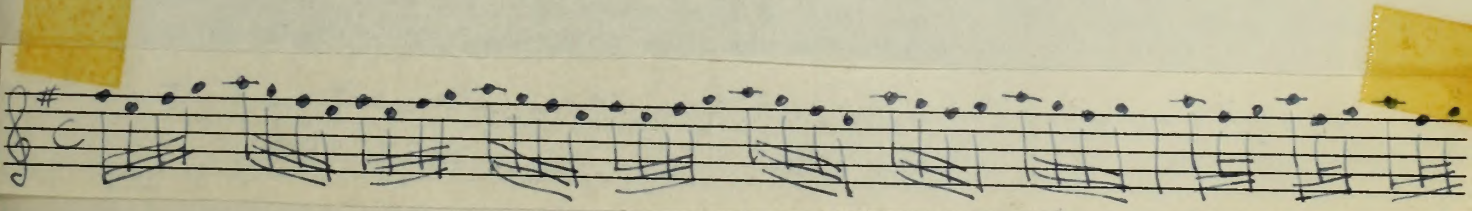
Biber was quick to pick up the idea, and in 1670 wrote a serenata of his own which begins similarly, with the same dramatic pauses, the same contrasts of forte and piano, and the same general contour:



"Serenade für Finf Streichinstrumente", Nagels Musik-Archiv. Reduced from score.

To present this as an example of direct imitation would of course be presumptuous, but it does seem to suggest a rather close influence.

Schmelzer's melodic lines, judging by the examples in DTÖ, vol. 28, 2 are generally simpler, rhythmically and technically, than Biber's, though his "Fechtschule" (fencing school) has a passage that could have been written by Biber:



The finger work, the reiterated pattern, the short separate bows on fast notes are characteristic of Biber. Seemingly Schmelzer had a "program" in mind for this effect, as Biber presumably did, so very often.

Before ending this section on Biber's antecedents it would be well to point out that not one of the composers referred to wrote a single work for the violin which is in the popular repertory of violinists today. The earliest such work is probably the Ciaconna of Giovanni Battista Vitali, Biber's contemporary. The famous school of Italian composer-performers of the violin appeared for the most part a trifle later than Biber.

Vitali	1644-1692
Bassani	1657-1716
Corelli	1653-1713
Vivaldi	1675-1741
etc.	

A List of Biber's Compositions*

Balletti Lamentabili, dated 1670, is in manuscript at the St. Moriz-Archiv, Kremsier.

Balletti a 6, dated 1670, is in manuscript at the St. Moriz-Archiv, Kremsier.

A serenade for five string instruments, dated 1670 or 1673, has been published in an authorititive edition by Dr. Paul Nettl for Nagels Musik-Archiv (1933) and is currently available. The work contains the following remarks:

Die Serenada, Allemanda, Aria, Gavotte, Retirada werden alle nicht repetirt. Vom anfang wie sonsten Ballett man zu reproduciren pflegt. Aber wohlbesetat, sonderlich die viola brazza 2, welche das Fundament zumeist ausfuhrt. In der Ciacona kombt der Nachtwachter, wie man jetziger Zeit die uhr alhier ausrueffen pflegt. Und die andern instrumente werden alle ohne Bogen gespielt wie auf der lauten auch in der Gavotte, es kombt schon heraus, nemblich die geigen unter die armen.

As Dr. Nettl points out, the nightwatchman who comes in the ciaconne replaces the basso continuo entirely for that movement, and sings the words later used by Richard Wagner.

Two manuscripts at Kremsier marked "H.J.B. anno 1673.)

Twelve sonatas scored for five to eight instruments (two violins, four viols, two trumpets, and a basso continuo for cembalo or organ) were published by J.B. Mayr of Salzburg in 1676. Title: "Sonatae tan aris, quam aulis servientes, ab authore Henrico J.F.Biber, Musico et cubiculario Salisburgi."

*This list is based on a similar one by Jeffrey Pulver as published in "The monthly Musical Record" of London, Feb., 1925, and has been cross-checked with the Eitner "Quellen-Lexicon," (Band II, 33-34) with Guido Adler's excellent article in the Austrian Denkmaler (foreword to vol . V, ii)\, and with the various other sources available to the present writer and listed in the bibliography to this paper. It is not intended to be a definitive catalogue of Biber's works, but rather to form a basis for further, more detailed study, and to give the reader a broad perspective on the scope of the composer's creative activities.

A set of eight violin sonatas were published by J.B. Mayr in 1681. Originals may be found in the Dresden Museum, the Munich Library, and the State Library at Berlin. The set was republished in 1898 by the Austrian Denkmaler, (vol V,i). The sixth was published in a poor arrangement by Ferdinand David in his "Hohe Schule des Violinspiels" (1825). Two of these sonatas, numbers four and six,, use scordatura.

"Chi la dura la vince," Biber's only extant opera, dated 1681, is in manuscript at Salzburg.

"Vespers," with four vocal parts, two violins, two viols in consort, and four voices "in cappella," with three trombones ad lib. : published by Mayr, 1693.

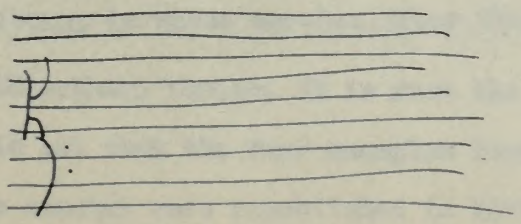
"Tratenimento Musicale," a composition published by Mayr in 1699.

Undated Works :

Seven partitas,published at Nuremberg after Biber's death, consist of suites in three parts for two violins and bass; violin, viola and bass; or two violes d'amore and bass - all requiring the cembalo. The title reads:

Harmonia artificiosa-ariosa, diversi modi accordata, et in septem partes vel Partitas distributa per Henricum Joh. Franciscum a Bibern, Archi-Episcopi Salisburgensis Quondam Dapiferum et Capellae Magistrum Noribergae Apud Wolfgangum Mauritium Entderum.

Not only are these in scordatura, as mentioned in the title, but also the violes d'amore in number seven use a nine line staff as follows:



Two requiems. 1) Five voices, five viols in concerto, and five voices "in capella," with three trombones ad lib. 2) Alto, tenor, two basses, four violes di brazzio, two trombe basse, three tromboni, two piffari ad lib., six voices "in capella." Both are in the Salzburg Domarchiv, and the second has been republished in the Austrian Denkmäler. (Volume XXX, i)

"Sonata pro Tabula a 10" for five flutes, two violins, three viols, and organ bass.

A mass for soprano, alto, tenor, and bass "in contrapuncto" with continuo is in manuscript at the collection of the Musikfreunde in Vienna.

"Missa St. Henrici" for chorus and orchestra, published by the Austrian Denkmäler, with a foreword by Guido Adler. (DTÖ, Vol. XXV, i)

"Fidicinium Sacro-Profanum," consisting of twelve sonatas in four or five parts for three instruments and figured bass. Sonata number ten is included in Karl Nef's "Geschichte der Deutschen Instrumentalmusik."

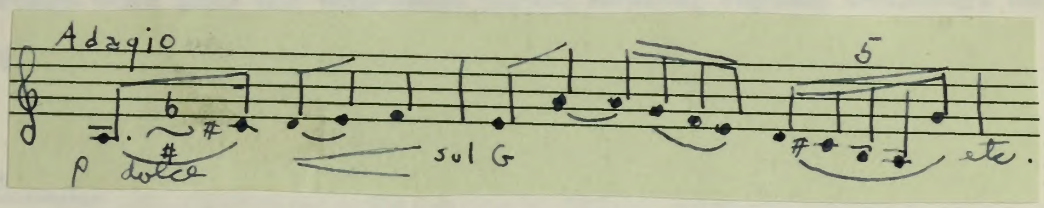
A passacaglia for lute, found in volume fifty of the Austrian Denkmaler is a transcription of the passacaglia for violin found in the sixth sonata of the "Eight Violin Sonatas."

A "passagaglia" for unaccompanied violin, published by the Austrian Denkmaler as a sixteenth sonata in the set of fifteen "Mystery Sonatas."

Fifteen "Mystery Sonatas" for violin and figured bass. Written between 1670 and 1687, (as they are dedicated to Maximilian Gandolph, Archbishop of Salzburg, in whose service Biber then was) the manuscript is in the Staatsbibliothek, Munich. It is from the Austrian Denkmaler's publication of this set that the four examples found in this thesis were taken. These sonatas were republished in 1923 by Universal-

Edition, Vienna. It is an extremely poor edition.* Sonata six appears in Arnold Schering's "Geschichte der Musik in Beispielen," and part of number eleven may be found in the "Historical Anthology."

* In the publication of the Universal-Edition, the melodic lines have been altered sometimes beyond recognition. For example, the theme of the Ciaccona (see page 21 above) appears there in the following guise:



- From page 19, vol. I of "Fünfzehn Mysterien", Universal- Editio

The extent to which improvised embellishing was practiced during the Baroque era is of course disputed. Hawkins quotes a pupil of Corelli as saying that master performed his sonatas simply, without embellishment; but this by no means proves Biber's practice. I conclude that Biber, like Corelli, did not intend his music to be embellished, because he often wrote cadenza-like passages in full (e.g. page twenty-six, above). His intradas, particularly, consist of free improvisations over a pedal. Why, if Biber bothered to write these out, would he at other times have left the notes to the imagination of the performer?

If one notices the over-all form of the Ciaccona from which the example is taken, he will see that the theme in question is found near the center and occurs also at the very beginning and at the end. Any great elaboration of this theme not only destroys the typically Baroque arch of the composition, but also the basic element of contrast. The form that Biber evidently intended to convey - theme, variations, theme, variations, theme - is all carefully written into the composition. (Schmelzer seems to fall into a different category. The Denkmäler (vol. 28, 2) includes a chaconne by him in which only the original eight bar theme is notated, the players being expected to improvise upon it in turn.)

The particular type of embellishment used by Universal-Edition's publication - the Wagner-like turn at the beginning, the crescendo sul on G (scordatura renders high position work improbable for this passage even if used for the lower strings at that time), the romantic quintuplet figure at the end - all of these have in my mind distinctly the sound of the nineteenth, not the seventeenth, century.

The cembalo part in this edition is enlarged quite beyond the spirit of the small virginal for which it was intended (see frontispiece) and the violin part is taken out of scordatura.

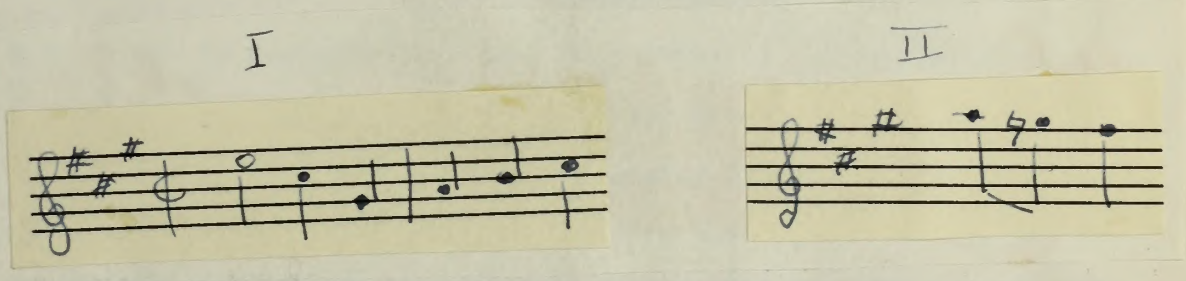
Not only have all these liberties been taken in this Universal-Edition publication, but what is worse, no explanation is offered by the editor. The performer has no inkling that he is playing an editorial "interpretation" of the original.

Style

For the sake of analytical convenience, musical style is here broken down into the component parts, motifs, rhythm, modality, melody, figured bass, and forms.

Motifs

Biber, at least as much as other Baroque composers, was aware of motifs as a cohesive force in music. Let us examine the second of the fifteen mystery sonatas, the "Magnificat," page fifteen, above.* In the first sixteen measure section there are two principal motifs** -

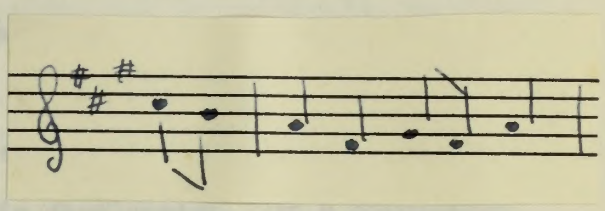


The entire movement is an outgrowth of these two ideas; they are reflected everywhere, not only in the two melody parts, but also the bass line consists of it. Special attention should be called to the facts that 1) in bars five, six and seven the two motifs are repeated by the

*Page numbers not otherwise designated in this essay are a request for the reader to turn to the reprinted sonatas found in this paper, PP. 15- 32.

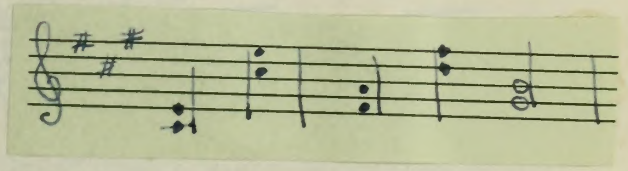
**Examples given in this text, except where otherwise designated, are all transposed to concert pitch, while the full illustrations, pp. 15-32, are in scordatura. If the reader has difficulty interpreting the latter, he is referred ahead to the chapter on scordatura, in which transposition is discussed.

bass in the tonic key with 2) motifs I and II treated contrapuntally above it in both soprano and alto; in bar four the two motifs are combined into one in the alto - 3)



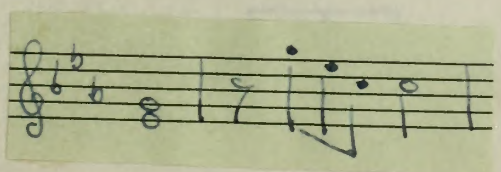
- and that 4) with the ninth bar the beginning is repeated in the dominant, after all of which the imitative pattern fades out abruptly and recurs only in vague hints from bar twelve to the end.

In bars fourteen and fifteen the composer presents a new figure involving leaps of paired thirds -



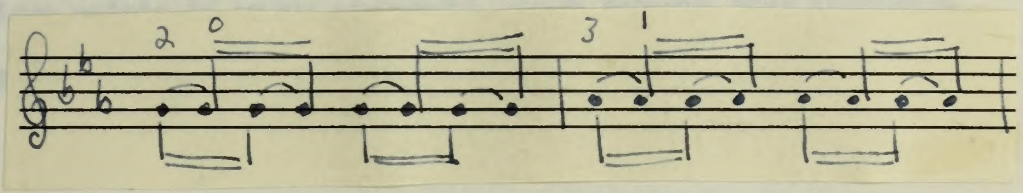
This figure is repeated twice in the presto that follows (brackets, page sixteen), thereby suggesting that the presto is not intended to be a new section, but is part of the opening movement - a hunch which is verified by the double bar before the Allemande. Thus it is evident that Biber's compositions were worked out with considerable care, and could be, when the composer wished, very closely knit.

For such motivic developments are not unusual in Biber's sonatas; they are to be found throughout both volumes of violin sonatas. The "Agony" sonata (page twenty-three), for example, opens in this way:



The eighth note arpeggio figure that occurs in bar two, is repeated identically, an octave lower, in bar three; in the original register, it is found in contrary motion in measure four; occurs again in bar seven identically to bar two; and in the relative major in bar nine.

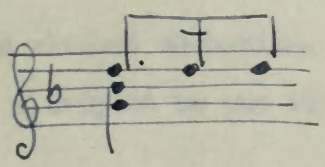
The double stop figure found on page twenty-four is another admirably rounded example of motivic development. If P represents the original figure, then A represents a more agitated form of the same. The calmer form returns at B, and we have a little interplay of the two for several bars. At C it is further intensified with this strange scordatura figure:



And at D, intensity is furthered by involving three strings in an awkward string crossing. From there on to E Biber adds excitement by a gradual ascent in pitch to E, where the descent begins, presumably accompanied by a retard into the adagio, which returns to the original pattern, P, and ends with the tierce de picardie.

In the slow movement on pages twenty-five and twenty-six, Biber uses two rhythmic patterns as motifs. This one is found thirteen times: $\frac{3}{2}$ 𝅗𝅥 𝅗𝅥. 𝅘𝅥 , and this one five times: $\frac{3}{2}$ 𝅗𝅥 𝅘𝅥 𝅗𝅥

A similar motivic use of a rhythm is found in the "Crucifixion" sonata, page twenty-eight, when the following pattern -

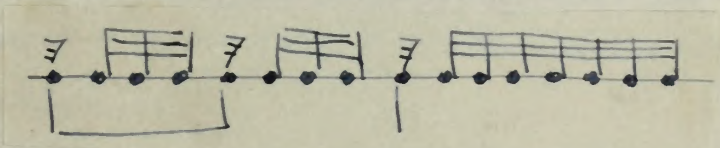


- is repeated again and again. ~~The~~ a chord is always found beneath it,

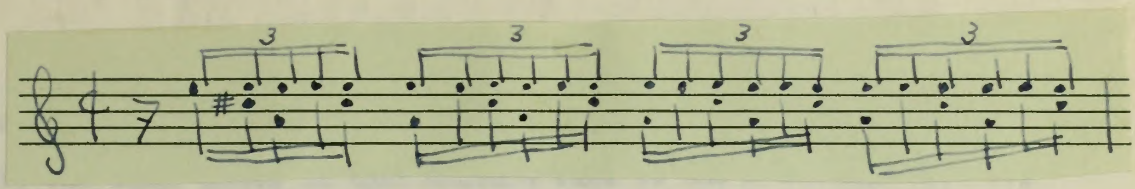
but Biber seems to be trying to find as many different chords as he can. It is interesting that towards the end of the sonata, page thirty-one, Biber returns to the same motif, now used in an utterly different context, and with a different meter. Such repetitions of motifs and themes in a new setting is not uncommon in Biber's sonatas, and may well be a reflection of the variation suite (which was used by Froberger.) The "Magnificat" sonata, page fifteen, is particularly suggestive, in a subtle way, of the variation suite. Perhaps it is the repetition of the first three notes of the bass at various points in every movement, which conveys this variation feeling.

Rhythm

Rhythm is one of Biber's strongest points. Sometimes he seems to become obsessed by a rhythm and repeats it over and over. It is difficult to find among other Baroque composers' works, examples with quite the madness of that found on page thirty-two, herein. A similar example is found in the third sonata from the set of eight (DTÖ,V,i),where Biber persists in a rhythmic pattern for sixteen measures before proceeding to the following rhythmic play on one note:



He repeats this eight times without cessation. In another passage of the same sonata he delays a triplet by one sixteenth note and sets up a cross rhythm:



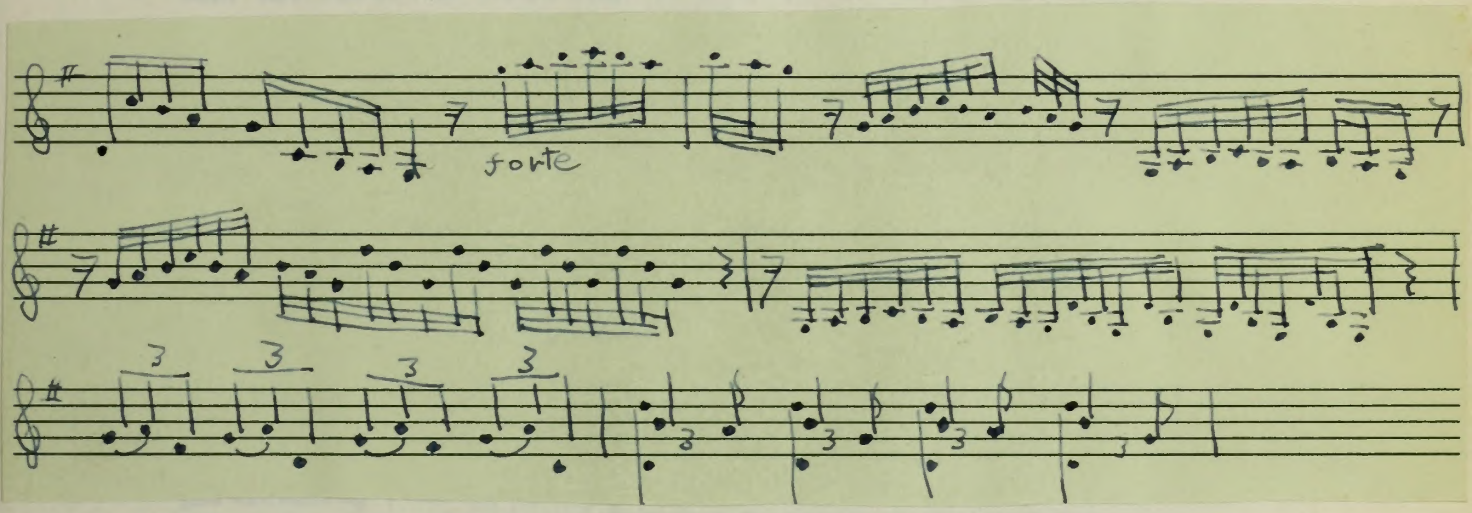
The second sonata in this book contains an aria with six variations. Variation five is in 24/16 time, consisting of eight groups each containing an eighth note followed by a sixteenth. As if to underline the uniqueness of this metre, Biber marks the next variation "16/24," which proves to be entirely a joke*, as the piece is actually in 16/16 or 8/8.

But Biber was as given to rhythmic variety as to rhythmic uniformity. An examination of the Allemande from the "Magnificat" sonata, page sixteen, shows that no two bars in the entire movement have exactly the same rhythmic pattern, bar for bar. Thus we have twenty measures with twenty rhythms, within, incidently, the eccentric double period of nine measures plus eleven measures. The rhythmic elements that do recur in this Allemande are seldom found twice in the same part of the measure. The dotted eighth and sixteenth figure found in the first measure, for instance, is repeated every three beats for several measures, thus setting up a sort of three against four. All the rhythmic irregularities of this movement, when added together, contribute greatly to the sense of awkwardness and anxiety that permeates the movement. Evidentally, Biber, like most composers today, considered the experienc of malaise a worthy human emotion to express musically.

Perhaps Biber's command of rhythm is best illustrated by this passage from the introduction to his "Resurrection" sonata, which combines variety, repetition, strongly accented rests, sudden change, and cross rhythm. The use of scordatura here adds to the wildness of the accentuations, so that the cross rhythm of the third bar

* Unless it is a misprint

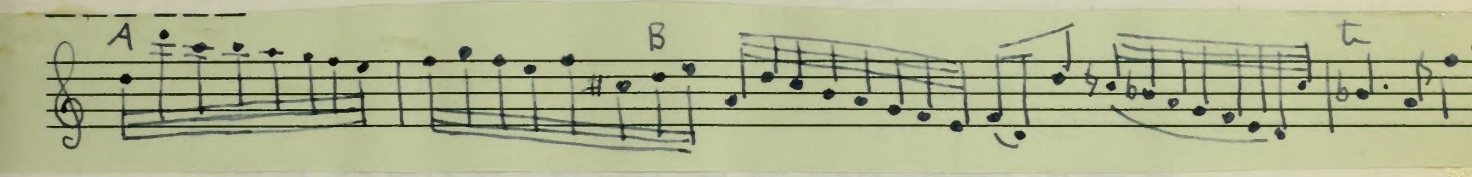
below involves producing all of the D's on the open E string, while all the other notes in that measure fall to the D string. That is, the player must skip back and ~~fourth~~ forth from the first to the third string without at any time striking the second one. In the following measure it is the same situation again, except that the second and fourth strings are involved.



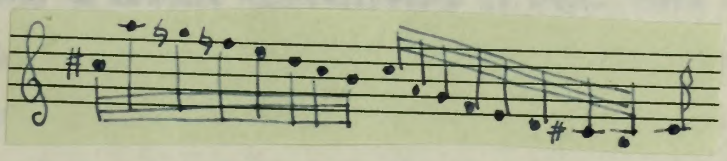
Modality

During the seventeenth century, the predominance of the major and minor tonality was ~~nearly~~ not as firmly established as it became during the eighteenth and remained during most of the nineteenth. In Biber's music there is a considerable leaning toward modality. Specifically, the relationship between modality and tonality in Biber's works seems to be this: the figured bass generally fits into a tonal pattern while passing notes in the melody are likely to imply modes. The modes implied, however, are entirely random, may be taken up or dropped at will, and are frequently mixed. In

the "Annunciation" sonata there is the following passage, all over the chord of d minor:



From A to B is in the Dorian mode; B to C is minor tonality except that the fifth and sixth degrees are raised while descending; and at C there is a normal minor scale. Later in the movement Biber reverses the procedure of B to C and lowers the fifth and sixth degrees in an otherwise major tonality. Over the chord of A:



Passages of this type are very common in Biber's music. He seems particularly fond of the major scale with lowered fifth and sixth degrees. On page twenty there are three examples of it in close proximity, twice on the dominant chord and once on the subdominant. In the same passages, the dorian and mixolydian modes are to be found. Perhaps one of Biber's most effective modal passages is in the slow movement of the "Agony" sonata, pagetwenty-five. In a series of upward scales, he uses first the major with lowered fifth and sixth, then the phrygian mode, next the Ionian (our major scale) twice, followed by the Dorian mode, while the cadenza on the next page returns to the phrygian. The next little cadenza is completely major.

Melody

It goes without saying that melody is inextricably bound to the other aspects of musical style that we have been surveying - rhythmic and motivic elements, and the gravitational forces of tonality and modality, as well as harmony, which is still to be discussed. None of these things actually exist in abstracto, but are being deliberately and arbitrarily isolated for study, like isotopes of the single element - music.

As one might expect from Biber's rhythmic diversity, there is a great variety of melodic expressiveness as well. There are completely integrated, tonally conceived melodies such as the chaconne melody on page nineteen. The high A is struck only once in the first phrase (at *), and the second phrase builds back up to the same note with a melodic and rhythmic sequence, after which it returns quickly to the tonic. The subtlety of the period comes from the facts that 1) the climactic note (A) is never sounded on a strong beat, though its second appearance is on a stronger beat than the first one; 2) the climactic note is itself part of the sequence that leads to it; and 3) this climactic sequence also contains the seed of its descent in the two eighth notes on the third beat, for, after the final A has been struck these two notes lose their up-beat character and lead back toward the tonic.

There are elongated, lyrical type melodies, such as the one we find on pages twenty-five and twenty-six,* which continues for thirty - four measures without any real cadence. It might be better to interpret this melody as ending with the false cadence in the fourteenth measure (at ⌉), and consider the rest of the movement development.

* cf. note(*), p. 43 of text.

The roundedness of Biber's melodic concept is again evident in this example - that is the phrase builds gradually to a high D which is anticipated once on a weak beat (*), and then struck full force (**), after which the melody recedes steadily to the end. In outline it conforms completely to the melodic ideal of the romantic era.

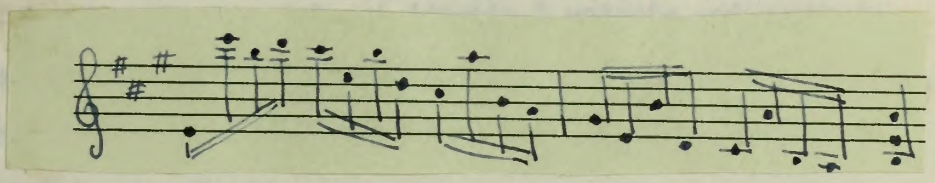
And there are infinitely short melodies as (⌊——⌋) on page forty-four,* which is three bars long, and that broken in half by the sharp rhythmic motif which is foreign to the melody itself.

Very characteristic of Biber is the nervous, restless melody, which is found in the Allemande, page sixteen and seventeen. This effect is achieved not only by the rhythmic diversity previously discussed, but also by a melodic disjointedness. Corelli's music, and that of late Baroque composers in general, was always dominated by an organizing impulse, so that even if a melody leaped considerably it would still outline some suggestion of melodic counterpoint. Notes do not stand out alone, like solitary planets, but always are organized into some sort of solar system. We find this practice frequently in Biber, too, as on page twenty-two, where the scale of d minor is outlined against a tonic and then a dominant pedal. But one finds almost as frequently an opposite tendency, which I would call a disorganizing impulse, as a result of which notes are deliberately misplaced, cast off like sparks to fend for themselves.* To return to the Allemande on page

* The idea of a "disorganizing impulse" might well be questioned. It is my own term, and is at best a relative one. The concept could certainly be expressed in different terms, considering that even Schonberg's twelve tone system is, after all, an organizing concept. But I am trying to suggest a distinction between early and late Baroque outlook, without in any way meaning to imply that one or the other is the more valid.

**Cf. footnote (*), p. 43 of this text.

sixteen, there is an example of this in the third bar (at ♩.) The melody is angular enough as it is , but every note falls more or less into line until we come to the A on the third beat of the third bar. Here the melody is obviously headed from B♭ to B . Every sixteenth fits easily into the pattern except the A in question, which stands alone and doesn't lead the ear anywhere. Apparently Biber planted it there quite knowingly in order to punctuate the malaise of phrase, which it surely accomplishes. With this passage from page seventeen, the disorganizing impulse is found again. Biber seems to be trying to be free, to push back enclosing walls:

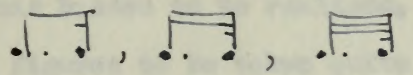


On page twenty-nine there is an aria with variations which fairly well sums up Biber's melodic treatment. The theme itself is entirely characteristic of the composer. It has a folk-song quality, and yet is entirely too stilted to be an actual folk song; through the stilted awkwardness the spirit of the piece remains gay.

The first variation illustrates the disorganizing impulse. The notes are scattered and have no discernible uniformity of pattern. He begins with a g minor arpeggio (A), follows this with a D major scale using lowered fifth and sixth degrees as passing notes (B); in the next bar (C) F natural is introduced with no melodic purpose, and is followed (D) with a scale on F in the mixolydian mode. After the double bar there is a particularly evident scattering of the notes in such a way as to suggest irresistibly the conscious or unconscious abolition of the principles of both teleology and

causality.

Variation two, on the other hand is highly patterned, both with respect to the broad descending sweeps, and to the smaller motivic elements. The dotted rhythm is maintained on three levels:



which gives it a characteristic early Baroque angularity.

Variation three is tonally organized (except that the Eb passing note at x has a modal implication), and is utterly graceful throughout.

Variation four takes its material from the first movement. Each of its bars have an almost identical melodic and rhythmic pattern. In terms of phrases, it is divisible by either one, two, or four. The second half implies a sort of contrary motion or complement to the first.

Variation four-A is rather like the first, in that tonality is abandoned as much as possible. F# and F natural are interchanged abruptly several times (a), and the flow of the harmony is disrupted by unexpected passing notes (b and c), which are sometimes, as at b, placed in an exposed position. At the same time this variation achieves a sense of continuity (it is only where it is continuing that remains obscure) due to the total contour, which starts high, descends, then rises to a height and falls again.

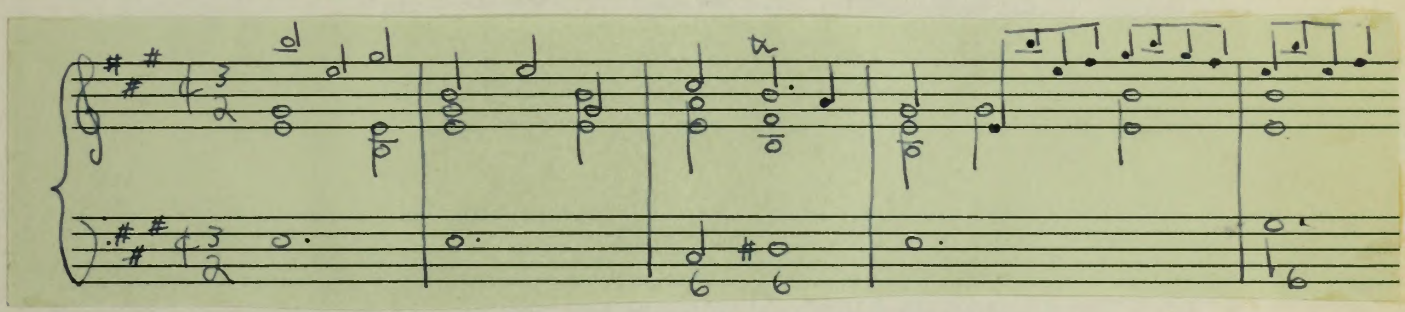
The last variation is hardly a melody at all, but an impetuous rhythm chanted out against itself.

Figured Bass

The thorough bass technique of composition was well established

in Biber's day, it having been first advocated around 1600 by Caccini et al. Biber uses the figured bass not only in his solo sonatas but in his other works for various instruments as well. It is from these other works that we can get a clear indication of how he intended his basses to be realized. From them we learn that he intended his figures to be taken quite literally, that he seldom omitted an essential figure, and that he wanted the realization to be as simple as possible. The "Fidicinium Sacro-profanum," for example, a work for four stringed instruments with figured bass, has the character of a violin sonata, and we can see how Biber realized his own bass with the two middle parts:

reduced from score



Although there is nothing florid about this working out, it is not entirely unimaginative, with its trace of rhythmic interplay, and its suggestion of countermelody.

Biber's bass not infrequently consists of one note held through an entire page or more. The prelude of the "Annunciation" sonata, which is in d minor, is based on an unfigured D held for nine

measures, which then descends during the course of three measures of ms movement to an A, held for five measures; and then two more measures of movement to a g minor, or subdominant, chord for one measure; A major, or the dominant, held for four measures, resolves back to D tonic on the final measure. The harmonic contour of such a piece is easy to see: tonic - modulation - dominant - modulation - subdominant - dominant - tonic. And yet above this, in the violin solo, there is a perpetual play with modality in thirty-second notes. Such prolonged pedals are quite in the tradition of Frescobaldi's organ works.

In the"Presentation" sonata, page nineteen, there is some question as to Biber's intentions at the cadences. Sometimes he has marked a raised third on the dominant and sometimes he has not. In these places Jacob Labor, who realized the piano part for the Denkmaler, has either avoided the third, as in the fourth bar of the illustration, or has contradicted the indication, as in the eighth. Since in almost every case the violin itself sounds the raised third, there are good grounds for doing the same in the thorough bass, yet the following points should be made. 1) Biber doesn't seem to have simply forgotten the markings, becauses he continues to mark the cadences occassionally to the very end, sometimes with a sharp on the first beat, sometimes on the second, and several times with a 4 and a 5/4. 2) He never sounds C natural against C♯ at the beginning of the bar. That is, whenever C♯ is struck by the violin at the beginning of the bar, as in measure twelve, Biber has added the sharp to the bass. Therefore, considering the size and tone of the type of virginal for which this music was intended (see frontispiece), it is clear that the C natural would

fairly well have died out by the time the C# in the violin was sounded. That is very likely what Biber intended.

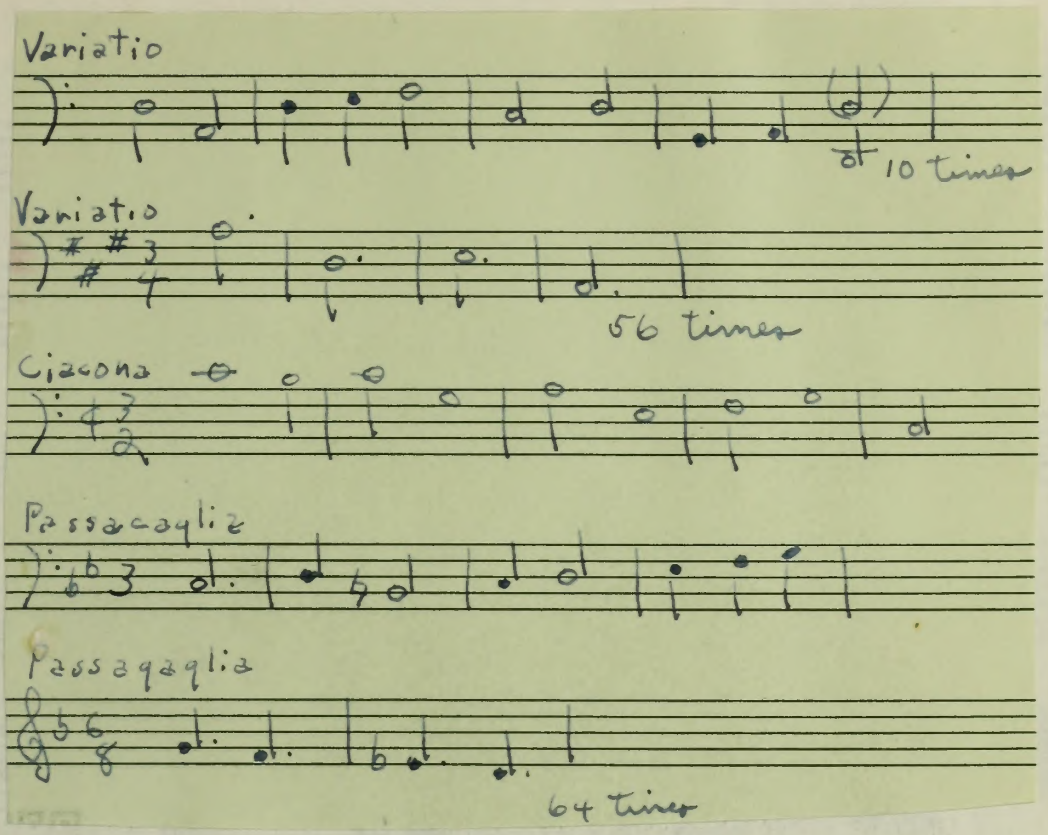
Biber's harmony, though frequently strong dominant harmony, as in the above cases, was just as frequently vague and floating, as seen in retrospect. It is the vestige of Zarlino and hexachordal harmony. Such tonal indefiniteness is evident in the beautiful theme on page twenty-five. The composer obviously had no notion whether he was in c minor or Eb major, and furthermore he didn't care. The bass, as a cantus firmus, is inconspicuous, and maintains a tonal neutrality.

It is evident that Biber's harmonic techniques do not place him among the avant garde of his day in this respect. He seems not to have been experimental to any great extent, but rather to have used unquestioningly the practices inherited by him from the earlier Baroque composers. This is doubtless an important reason for the rapid eclipse of his fame, for the organization of music around the harmonic concept was at this precise time in the offing. The first harmony books, those of Fux and Rameau, appeared early in the eighteenth century. Froberger, Biber's predecessor, was way ahead of Biber in chromaticism and in a fugal style of composing, while Corelli, his contemporary, had already subdued his impulses completely to the major and minor modes. These people had achieved historical significance, while Biber's significance lies purely in the pleasure of his music per se. And now that the dual highway of major and minor tonality seems to have reached a dead end, perhaps music such as Biber's can be revived and enjoyed again for its winding freedom.

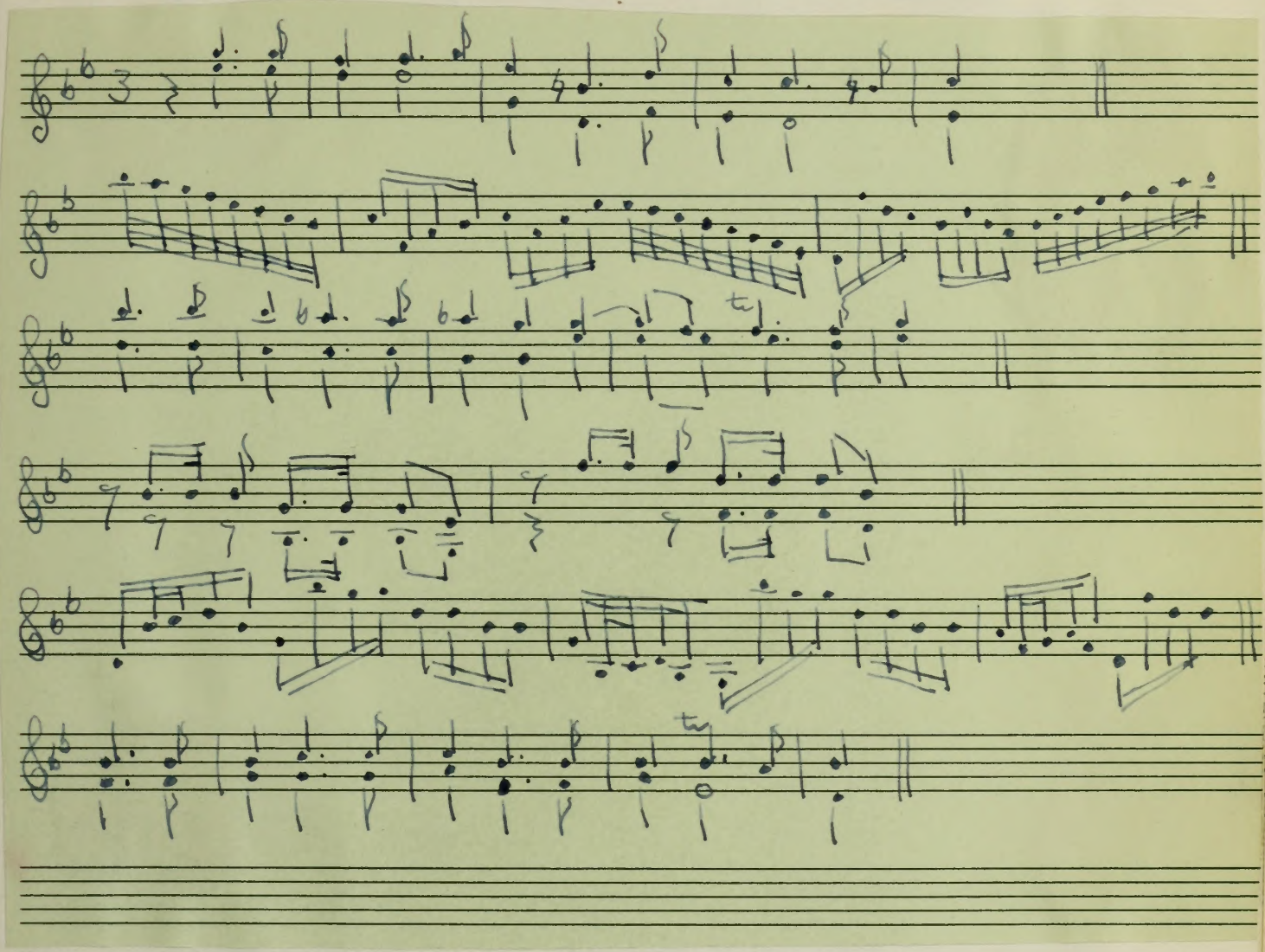
Forms

By far the commonest form in Biber's sonatas is the variation. Sometimes called Ciaconas, sometimes Passacaglias (or Passagaglia,) sometimes Variatio, and occasionally in the form of doubles, there is very little consistent difference between them. In this book there is on page nineteen a Ciacona and on page twenty-nine an Aria with variations. The two movements resemble each other considerably. The Ciacona is in triple time, the theme is a little shorter, is stated more times than is the bass of the aria. In the Ciacona the opening theme above the bass is repeated near the middle and again at the end, but in neither of them is there any actual variation of a theme. They both consist of a bass theme repeated continuously without change, with a succession of counterthemes composed over them.

The distinction between these various forms is always dubious, and it is not a matter to be settled here. Suffice it to say that if there was a distinction in Biber's mind, it was on some other basis than structure. Below are several other grounds used by Biber.



The sixth of the eight violin sonatas published 1681, contains a Passacaglia which is more complex than any of the above examples, in that the composer has felt free to drop his bass theme at will, to modulate it occasionally, and in general seems more preoccupied with the continuity of the melodic line than with the repetition of the bass. Considered broadly, this passacaglia bears enough resemblance to the later chaconne of Bach, to suggest that Bach may well have heard it, and have had it somewhere in his mind when writing his famous work for unaccompanied violin. Below are a few of the salient variations of the Biber work:



If the form of Biber's sonatas are limited in dramatic expressiveness, it is because the sections are so very short. This is characteristic of early Baroque music. In the "Lamento," page twenty-three, Biber is clearly trying to cope with this problem by joining the entire sonata into one whole, yet the sectional divisions remain. In some of his other sonatas he goes further in establishing continuity. This is particularly true of the eight sonatas of 1681. Biber varies the

Correction of above two lines:
sonatas he goes further in establishing continuity. This is
particularly true of the eight sonatas of 1681. Biber varies the

ostinato, uses double counterpoint, and sometimes bridges the melodic line over the connecting point in the bass.

Scordatura

Since the use of scordatura is one of the more interesting and unusual features of Biber's violin sonatas, it does not seem inappropriate to consider the subject here separately and in some detail...

History

The term "scordatura," coming as it does from the Italian word "scorde" meaning false and "accordatura" referring to the chordal arpeggio produced by plucking the open strings, is something of a misnomer. The best translation of the word would be "mistuning," yet there is no law, logical or divine, that requires violins to be tuned in fifths. Doubtless an instrument tuned to major tenths would have many unexplored musical possibilities.

It is true that the violin has been identified with perfect fifths almost by definition as far back as the history of the instrument can be traced, and that therefore any tuning of the strings other than in this way may well be regarded as eccentric. And this is what scordatura actually means; any eccentric arrangement of the open strings. But in practice they are seldom made false, and generally are more in accord with each other, in terms of the harmonic series, than strings tuned in fifths.

The practice of tuning violins in various scordatura arrangements, though striking the modern mentality as bizarre and the romantic mentality as, perhaps, macabre, was not, during the early Baroque era, uncommon. The first known use of the device was by the Italian

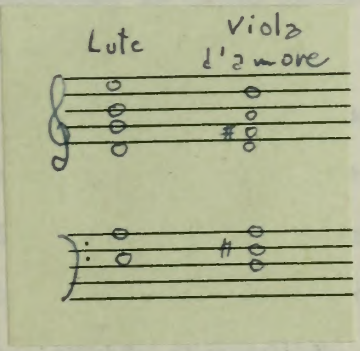
composer, Biagio Marini, who was also one of the very first composers to write sonatas for solo violin and continuo. In his opus seven, number two, dating from 1629, he has the performer tune his E string down a third during a seven bar rest and later restore it to normal pitch. At this time the violin had been a "respectable" instrument foronly a single generation, Gabrieli and Monteverdi having begun using it in their cantatas and madrigals after the turn of the century.

Mersenne, in his compendium on music written in 1627, "Harmonie Universelle," indicates in his discussion of violin playing that scordatura was not unheard of in France during the same period that Marini was using it in Italy. If the performer, he says, place his finger straight across the strings of the instrument he will produce a series of fifths provided the instrument is tuned in fifths. But if the instrument is tuned differently, for instance in fourths and fifths, he goes on, one and the same finger, by pressing down two or three strings simultaneously, can produce a series of chords.

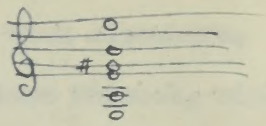
There are several reasons why scordatura was more common during this early period than later in the history of the violin. One of them is that the technique of playing the instrument, as revealed by Mersenne's statement, was not so carefully defined and regimented but what a player might deign on occasion to reverse his hand and place a finger across three strings. Another is that scordatura plaves an emphasis on unstopped strings, the pure tone of which was not during this era found objectionable; later on, when tone enriched by vibrato became the norm and violinists were trained deliberately to avoid open strings, scordatura lost some of its usefulness. A third reason is that the Baroque period was an era of considerable experimentation and intellectualization, when an almost abstract

theory like scordatura, which taxed the ingenuity of a composer, could be taken on as a problem worthy of theoretical exploitation; It was the age of Descartes, Spinoza, Leibnitz and Newton. Fourthly, scordatura makes high positions, which were not much used at that time, problematic.

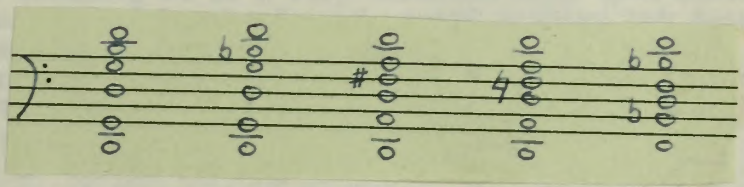
But perhaps the most important reason is that various other stringed instruments, with sundry tunings, were used extensively at that time along with the violin family, and often in the same ensemble. The six-stringed viols and the six-stringed and eleven-stringed lutes and theorboes, which were the standard instruments of the day, were tuned, like the present-day guitar, in fourths with a major third in the middle. What would be more probable than an occasional substitution of one instrumental family for another, with the necessary adjustments of pitch.



Furthermore, the tuning of lutes and viols was not entirely uniform. The low E of the viola da gamba was sometimes brought down to C, the pitch of the lowest string on the somewhat later violoncello. Because the lute was largely a chordal, accompanying instrument, scordatura to provide a ready made tonic chord was convenient and received considerable usage. The normal tuning:

(above) could easily be changed to: 

in order to simplify playing in E major. Such arrangements of lute strings were known in England as harp-way tunings, and Russell * lists five as being commonly used.



The first two , in G major and g minor, he described as favorites in England, and the remaining three, D major, d minor, and Bb major, he attributed to Germany. The procedure found application in France, too, as indicated by the collection of lute pieces, "Tresor d'Orphée," 1600, by Antoine Francisque, in which several dances are designated for lute "a cordes avalées."

Scordatura, then, for these various reasons found its way into violin music early in the Baroque era. The extent of its use is difficult to ascertain, but apparently it never became so common as to be taken for granted. Phrases such as violon discordé: verstimmt, diversi modi accordata, violin discordable (or discordata), a cordes avalées, etc, which are usually found in the title or the score of music involving scordatura, show that this practice was always regarded as an exception.

* cf. Bibliography

It apparently was more common in Germany than elsewhere. Corelli is reported to have been amazed when Nicolas Adam Strunck, violinist to Ernestus Augustus, elector of Hanover, played for him in scordatura while visiting Rome. This is the account that Hawkins gives of the incident:

> When Strunck had done at the harpsichord, he took up the violin, and began touching it in a very careless way, upon which Corelli remarked that he had a good bow-hand, and wanted nothing but practice to become a master of the instrument; at this instant Strunck put the violin out of tune, and, applying it to its place, played on it with such dexterity, attempering the dissonances occasioned by the mis-tuning of the instrument with such amazing skill and dexterity, that Corelli cried out in broken German, "I am called Arcangelo, a name that in the language of my country signifies an archangel; but let me tell you that you, sir, are an arch-devil." *

Strunck, who was born in 1640, four years before Biber, and died in 1700, four years before Biber's death, visited Vienna around 1670 and performed for Emperor Leopold I several years before Biber did likewise. The two must certainly have known of each other.

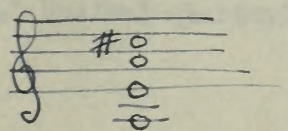
Another German violinist of the period who used scordatura was Thomas Baltzar, born in Lubeck in 1630 (circa). Since he went to England in 1655 and never returned it is doubtful that Biber, then eleven, was under his direct influence. John Evelyn, the diarist, heard him play in 1656 and reported that no English violinist compared to him. In 1658 Anthony A. Wood, another diarist, wrote that he had seen him run his fingers to the end of the fingerboard and back - a feat unheard of in England then. But it was Roger North who said that Baltzar used a "lyra tuning" to compensate for a "Hard and rough" hand. Burney mentions a set of sonatas by Baltzar scored for lyra violin, treble violin, and bass viol. The lyra violin

* Hawkins acquired this tale, he says, from Walther. Cf. Hawkins' "General History of Music," vol. IV, p. 315.

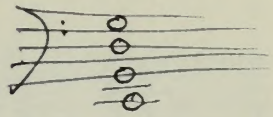
would probably mean a violin tuned like the lyra viol, a six stringed member of the viol family. Baltzar became, in 1661, leader of the king's band, and died in 1663, presumably of over-drink.

There is no reason to doubt that Biber used scordatura more extensively, and exploited its possibilities more systematically, than any other composer for the violin before or since. His chief endeavor in this respect is the "Sechzehn violinsonaten", published probably between 1676 and 1681, in which the sixteen sonatas employ fifteen different tunings, only the first and the last being in the normal accordatura. He used the device twice more in the "Acht Violin sonaten" of 1681, and in the "Harmonia Artificiosa-Ariosa", published in Nuremberg sometime after 1690, probably posthumously, even wrote in scordatura for groups of instruments. In this last respect he resembles Johann Heinrich Schmelzer, musician in the Imperial court at Vienna and fourteen years Biber's senior. (Guido Adler suggests that Schmelzer may have been Biber's teacher.)

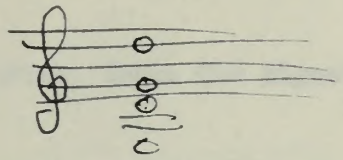
Just how much open hostility there may have been to scordatura at this time is not known, but Biber's contemporary, the violinist Johann Jakob Walther (1650 - 1717) in the forward to his "Hortulus Chelicus", published in 1688, declares himself an enemy of it. Unable to obtain this work (mention is made of it by Beckmann in his edition of Walther's "Scherzi da Violino Solo") the writer does not know on what grounds. However, scordatura persisted nevertheless. It is mentioned in John Playford's "Division Violin" (1685) with the favored tuning:



It is used twice by Bach during his Cöthen period, in the fifth suite for unaccompanied cello with the tuning:



and for violino discordato:



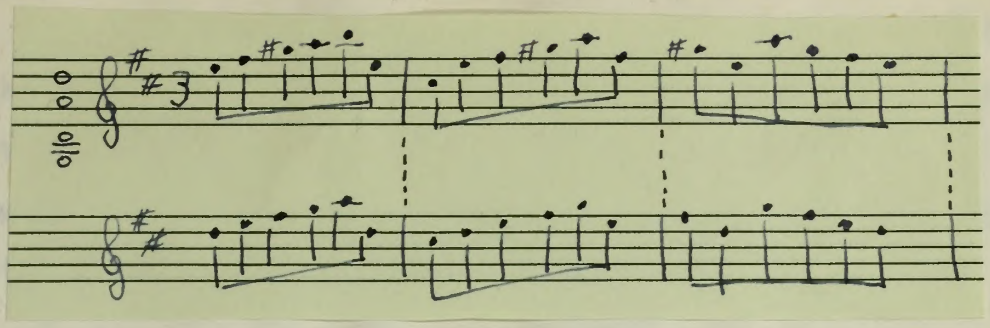
in a trio for flute, violin and clavier (B.G. IX, 221). And Mozart used it twice in modified form. In the Adelaide concerto in Eb major he had the violin tune each string a half tone higher, putting the instrument in the convenient key of D. He followed the same procedure for the viola in the "Sinfonie-concertante" for violin, viola and orchestra, also in Eb. All of these tunings are ignored by most present day performers.

In 1738, the first known method involving the use of scordatura appeared. It was the "Ecole d'Orphee" of Michell Corette.* The title page of this work, which devotes pages 39-41 to scordatura, is:

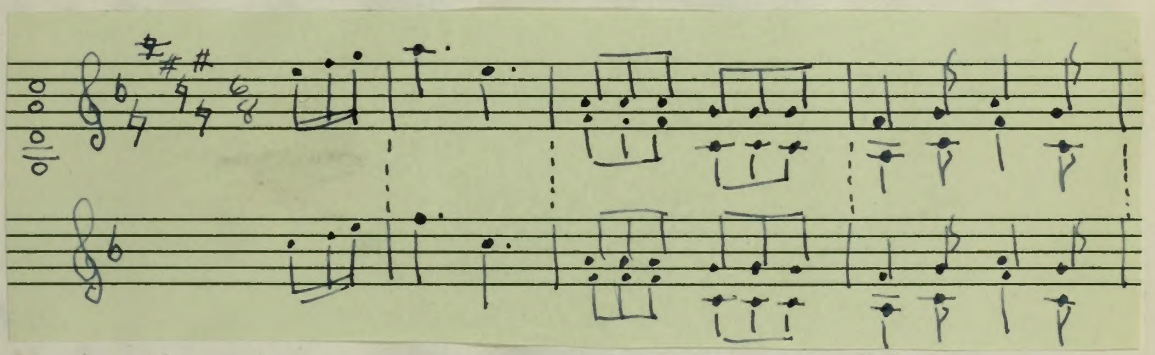
L'Ecole d'Orphée/ Methode/ Pour Apprendre facilement a jouer/ Du Violin/ Dans le gout François et Italien/ Avec de Principes de Musique/ Et Beaucoup de Lecons a I et II violons. Ouvrage utile aux commençants et a ceux que veulent parvenir a l'execution/ des Sonates, Concerti, Pieces par accords/ Et Pieces a cordes Ravallées/ etc.

There are four tunings given. The first is illustrated by a pair of minuets, beginning as follows:

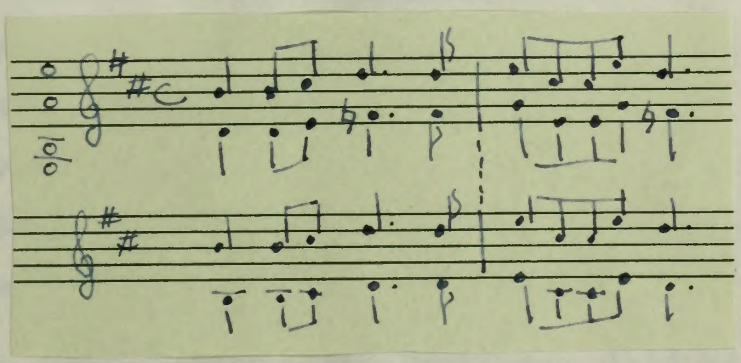
* The writer is here relying entirely on Theodore Russell's article, "The Violin Scordatura," Musical Quarterly, vol XXIV, 84-96.



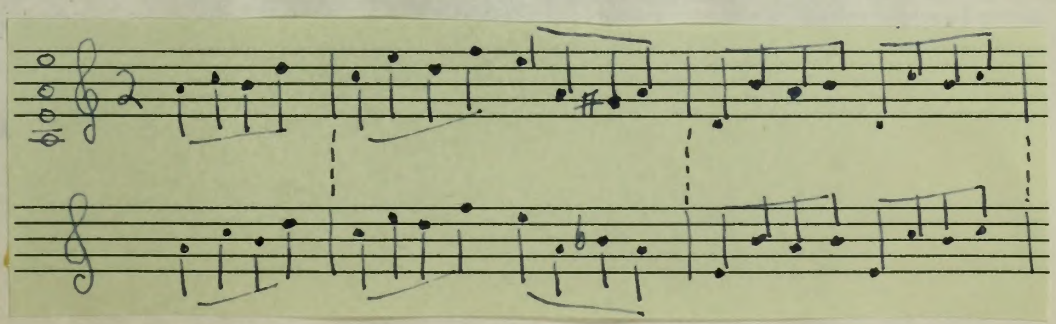
The second involves a fanfare: (Note the signature)



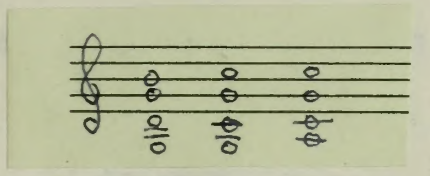
The third exploits octaves:



And the fourth is a Rondeau:

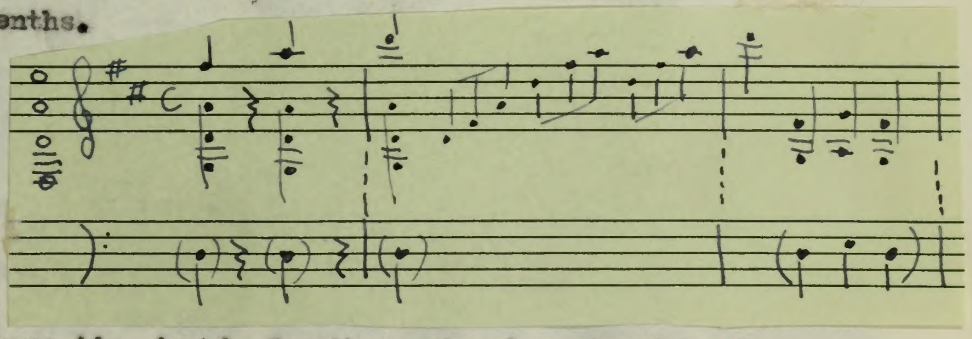


Not only Corette, but several other French composers are known to have used scordatura during the eighteenth century; Jean le Maire, in the rondeau of his Sonata I (for violin tuned in fourths), de Tremais in three sonatas out of a set of six (opus 4, circa 1740). In the latter case the three sonatas "discordées"



in G, C, and A, are printed twice, once with and once without scordatura.

Antonio Lolli, who performed in Paris in 1764, won such fame as a violinist who used scordatura that around 1770 Isadore Berthaume, another French composer, wrote a "sonate pour le Violon dans le style de Lolli". All the tunings mentioned so far in this paper involve bringing the strings closer together (except for the two middle strings in Corrette's third exercise, which are a seventh apart) either by raising the lower strings or lowering the higher ones. Lolli, however, and hence Berthaume, lowered the G string a fourth leaving the other three intact, and thereby extended the downward range of the instrument. Note the tenths in the third measure, played like sevenths.

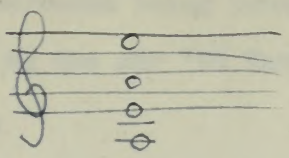


Transposition of notes played on G string

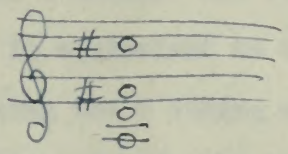
He pursued the same idea in his fourth sonata, lowering G to F.

In Italy, though scordatura was apparently, judging by Hawkins'

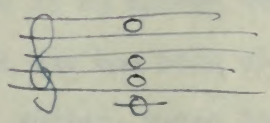
narrative, not very familiar to Corelli, it was used once by Tartini,



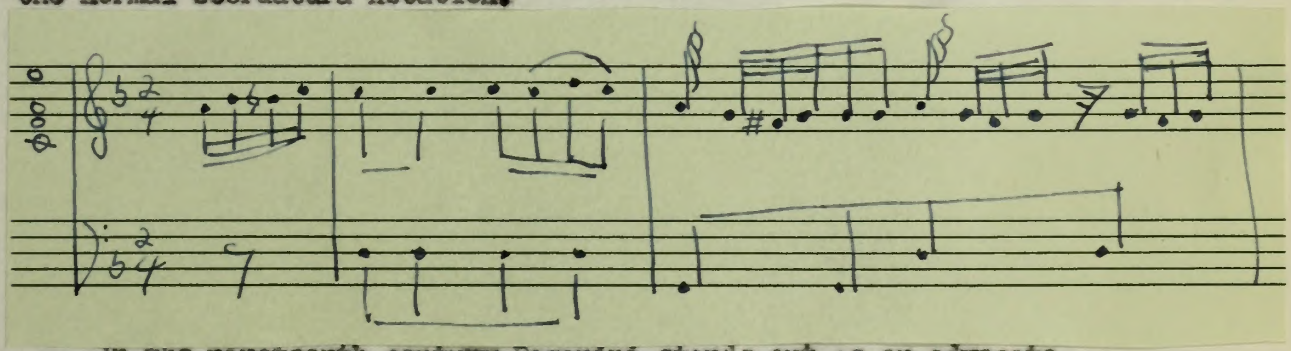
by Pietro Castrucci (in a fugue), by Emanuel Barbella with a viola d'amore tuning



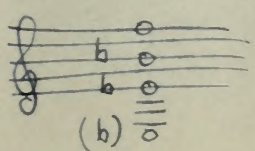
and by Pietro Nardini, who, in his "Sonate Enigmatique" uses not only the scordatura tuning:



but also two staves, the lower notes being written an octave below the normal scordatura notation.



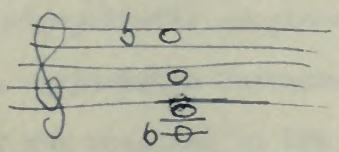
In the nineteenth century Paganini stands out as an advocate for scordatura. He is reported by Carl Guhr ("On Paganini's Art of Playing the Violin"- 1829) to have used the following scordatura:



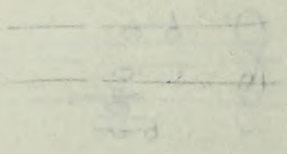
Also his D major concerto was originally intended for Eb, concert pitch, the solo instrument being tuned up a half step. In the same way his variations on the air "Di Tanti Palpiti" was written in A to be played in Bb.

Campagnoli, author of the famous viola method, also recognized scordatura in his "Nouvelle Methode de la Mecanique Progressive du Jue du Violon", and he includes three exercises for violin in "Imitation of the Viola d'Amour. The tuning, which is the same as Barbella's, above, is equivalent to the four middle strings of that instrument. Raising the G string was called for by de Beriot, Mazas, and Prume, lowering it (to F#) was advocated by Baillot, while tuning the entire instrument a half step sharp was indicated in some of Spohr's duets for violin and harp.

Today, scordatura is an almost unheard of device, limited in popular performance to the the solo violin in Saint Saens' "Dance Macabre", where the E string, tuned down to Eb, creates a "weird" impression. It has been used by Strawinsky in the "Firebird" suite, where the violins tune E to D so that the first violins can play harmonics in octaves with the second violins on the D string. Albert Stoessel, in his "Flitting Bats" used this scordatura:



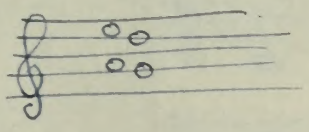
to produce glissandos of diminished fifths. Joseph Szigeti, in a transcription of Michael Gnessin's "Spielmannslied" lowered G to F#, but he did not transpose the part, so the player must produce every note on the G string a half step higher than written.



Theoretical analysis

Since scordatura is such a relatively unexplored device today, it would be well to discuss in some detail its technical problems and possibilities. Is it a practive which, having been experimented with thoroughly during the Baroque period, was found to be unsound and was justly abandoned? Or is it an artistic accomplishment which, like a Grecian urn, needs only to be excavated and restored to reveal forgotten wonders? Especially, what worth has it now, for composers seeking mediums that are new, or for performers seeking masterpieces? To answer these important questions we need to reach a complete understanding of just what the term "scordatura" implies.

We have said that scordatura, far from being a false tuning, has generally in history been an attempt at a more harmonious tuning than the conventional one. The four strings of the conventional violin, when brought into close position,

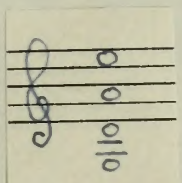
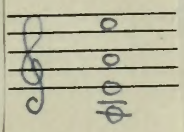
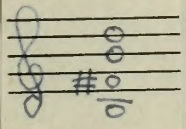
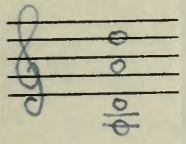
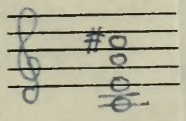
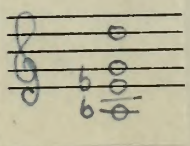


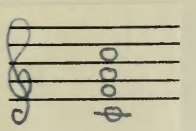
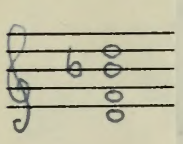
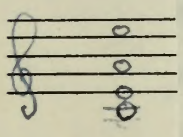
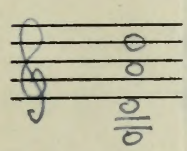
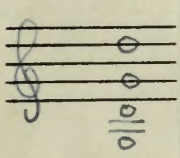
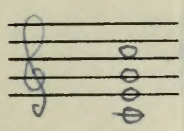
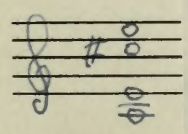
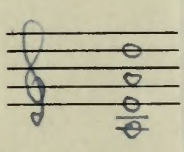
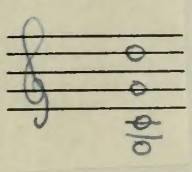
represent a rather unsympathetic conglomeration of pitches. In the conventional violin, sympathetic resonance, if not reduced to a minimum, is at least not realized to its full potential.

The very central idea of scordatura is, I believe, an attempt to do this - to bring the strings into more perfect concordance. The English, as seen in Playford's "Musick's Recreation or the Violin Lyra-way" (cf. Hawkins) as well as in his "Division Violin" knew scordatura by the name "harp-way" tuning. This name

is usually accounted for in terms of the harp-like arpeggios possible on an instrument on which the pitch of the strings has been pre-arranged into a chord. However, it is my impression that such an explanation misses the point entirely. The point is that in playing a harp the strings must necessarily be tuned to the key in which one is playing. This is still done on the modern harp by means of the seven padals. The objective of scordatura, then, is, in imitation of the harp, to arrange the strings of an instrument into the key of the piece to be performed.

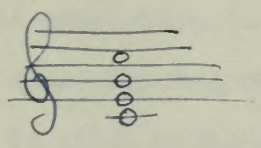
The majority of Biber's "Mystery" sonatas conforms to this theory, as may be seen from the following table:

Sonata	key	tuning	chord of tuning
1	Dorian		normal tuning
2	A		I
3	b		I
4	d		I
5	A		I
6	c		V (v), VI

7	F		I
8	B♭		I
9	a		I
10	g		I, V
11	G		I
12	C		I
13	d		V
14	F		I, V
15	C		I, V

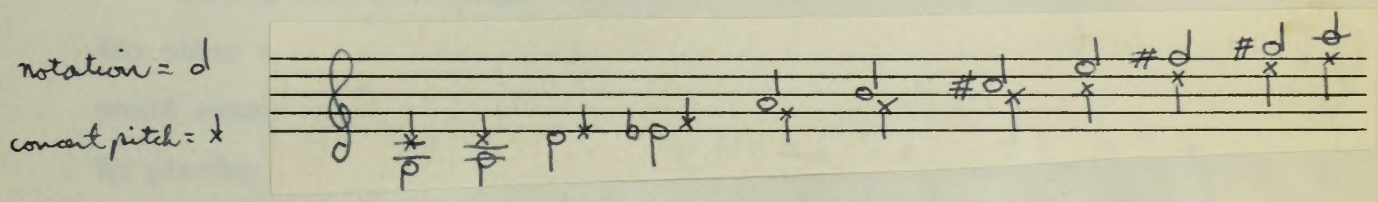
Most of the tunings are into the key of the piece, and those that aren't are tuned either into the dominant or into a combination of tonic and dominant, while number six, alone, involves a really discordant combination of notes.

Generally speaking, tuning into the key of the piece, or at least care in the selection of notes for a tuning, is an essential part of scordatura. It is not possible to tune to just any set of notes and form a successful scordatura. This is so because of the problem of transposition, which may be different for each altered string, and can produce an unwieldy key signature. For in scordatura the notes are so arranged on the staff that the player, striking them by sight as he has learned them, produces sounds at variance with the conventional note symbols. Thus, to sight an extreme example, with the following tuning -

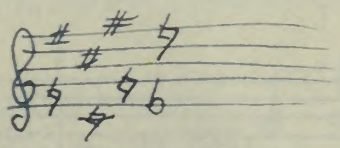


- the scale of C major

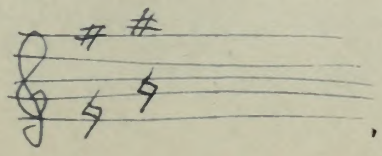
would be written in the following way:



The proper key signature for this quadruply transposed scale would be



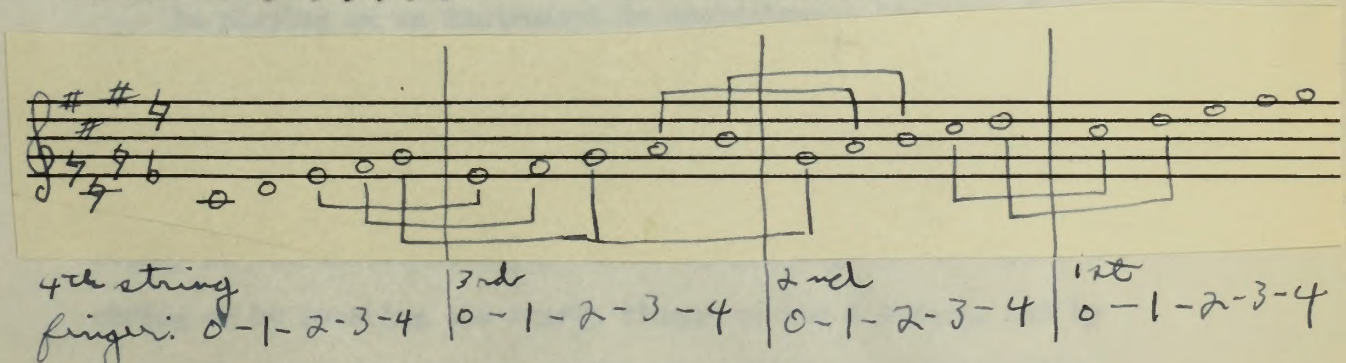
but in order to make this simpler for the performer, Biber, who uses this same tuning in his twelfth mystery sonata, gives the signature as



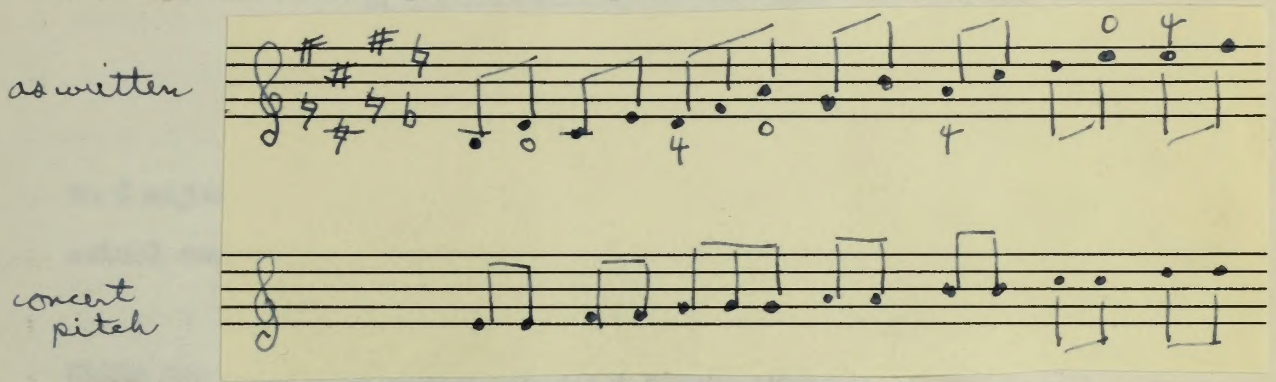
The few scattered Eb's and C#'s found in the piece are designated by accidentals.

It is sometimes felt that scordatura is almost impossible to decipher except by writing out the part at concert pitch, but this contention is considerably exaggerated. In the foregoing example the notes on the G string all transpose up a perfect fourth, which makes them comparable to notes on French horn an octave lower. The notes within the compass of the D string transpose up a second, so that they respond as a trumpet in D. The second string, sounding a second lower than written, is comparable to a Bb clarinet. Only the first string, on which C would sound as Ab, involves a transposition unfamiliar to present-day musicians. Therefore, the above scordatura, which is unusually complicated by the fact that all four strings are altered, is still no harder to read than a wind ensemble consisting of Horn, trumpet, clarinet, and an instrument in Ab.

Taking the same C major scordatura let us now approach from the other direction and see just where each finger falls, as it would sound in concert pitch. We see that the five notes produced by placing the fingers in their natural positions on the lowest string are C,D,E,F,G; on the third string, E,F,G,A,B; the second, G,A,B,C,D; and the first, C,D,E,F,G.



It can be seen that with this scordatura there is considerable duplication of notes on the several strings, that is, notes which may be produced on two strings at the same time, or arpeggiated rapidly. The following scale in duplicated notes is available:

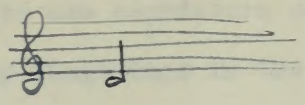


Biber himself did not always take full advantage of the possibilities afforded by such tunings. In sonata twelve, using the above tuning, he contented himself for the most part with trumpet fanfares based on the open strings. He, as well as other Baroque composers who used it, didn't seem to be interested in exploiting the possibilities for special effects in a thorough manner. This perhaps constitutes a basic difference between the modern and the Baroque mind. Whereas the Baroque mind was interested in ideas in the abstract, as subjects of genuine curiosity, the modern mind tends to pursue ideas in order to exploit them.

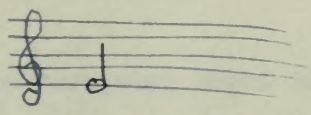
In playing on an instrument in scordatura a limiting factor soon makes itself evident, which, in turn, reveals something of the performing habits of Baroque violinists. On the standard violin the note D above middle C, as an example, can be played simultaneously in two different ways, either by playing the unstopped D string or by pressing the fourth finger on the G string, and by moving the hand into higher positions a great many other notes may similarly be obtained on two strings, though not very well

It can be seen that with this scordatura there is a considerable duplication

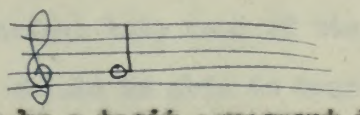
simultaneously. If the player tries such an alternate fingering on an instrument in scordatura he is likely to encounter difficulties. The written note -



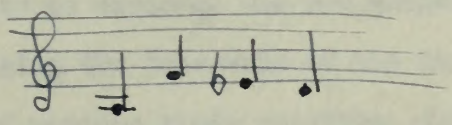
- produced on the D string (with the tuning to C major that we have been using as an example) causes the actual sound ;:



While the same note played on the G string sounds:

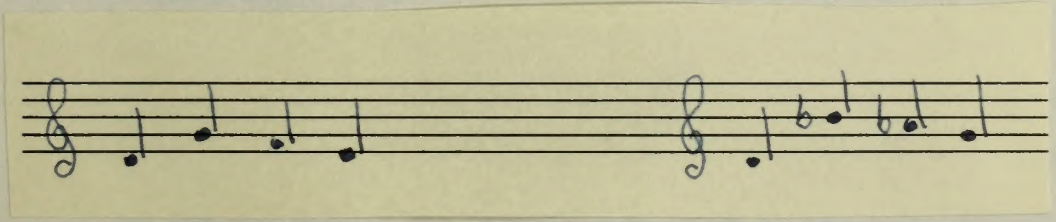


It therefore seems to be a tacit agreement that the player use the open strings wherever possible, at least until the music has been studied and fingerings marked. Similarly, a passage such as the following -



- which would very likely be played today all on the fourth string, by shifting the hand up, would produce the wrong sounds if so executed with the C major tuning.

Intended: Produced by shifting:



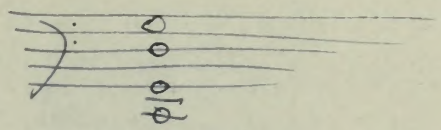
It is also tacitly agreed, therefore, that one never plays above the first position except on the highest string. The modern composer wishing to use scordatura could easily circumvent this problem by marking fingerings in the case of open string-fourth finger ambiguities, and by indicating the string for which a passage is intended. Thus, if the passage above were marked "3ul G" there could be no doubt but what the second series of sounds was desired.

A perusal of the foregoing pages should give the reader a fairly complete picture of the nature of scordatura, a method of transposition, and insight into some of its problems and possibilities. The reader should be able to translate music written in scordatura, or to compose in the medium. The creative possibilities of scordatura, both for solo use and for groups of instruments, remains necessarily a challenge to the imagination of the composer who wishes to explore it. One can generalize only by pointing out that bringing the intervals of the strings closer together makes doublings of various kinds possible, while enlarging the intervals brings octaves, tenths, etc., within easy grasp; and many special effects, such as arpeggiated diminished fifths, as used by Stoessel, or open string fanfares, as used by Biber are available. Also every different tuning brings a different array of chords into scope.

Because it enlarges the musical horizon, the value of scordatura to the modern experimental composer seems unquestionable, but there still remains the theoretical problem, exactly what was accomplished by its use during the Baroque era, when it was most popular?

There are three possible effects achieved theoretically by scordatura. 1) Certain passages become easier to play, particularly double stops (and by the same token, other passages become more difficult. 2) Certain chords and "special effects" not playable on a standard instrument become available. 3) The tone quality of the instrument is changed. All of these reasons are given as an explanation of why scordatura was used by baroque composers. Let us examine briefly one or two compositions involving scordatura and deduce if possible the composers intent. *

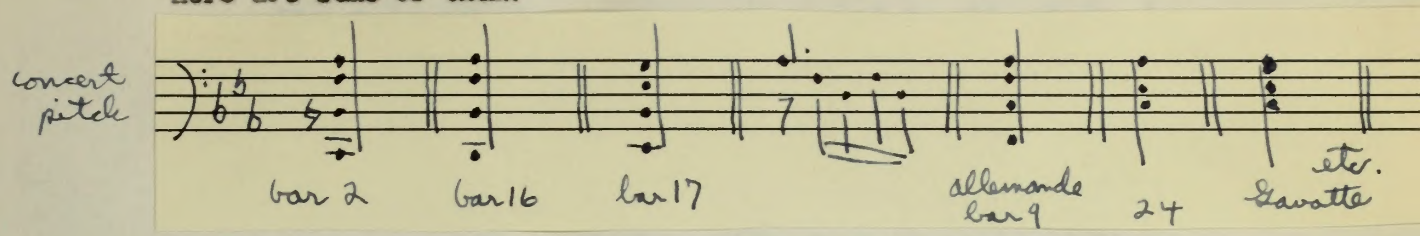
In his fifth 'cello Suite Bach used this scordatura:



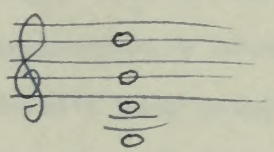
Now did Bach do this in order to make chordal playing, always difficult on the 'cello, more possible? If so one would expect to find a greater used of chords than in his other suites with normal tuning. But this does not prove to be the case. Considered as a whole the fifth suite does not appear to be either more or less chordal than the previous four. (the sixth is in a different category, being intended for a six-string, more flexible instrument). The three and a half page prelude which is as chordal as any movement in the suite contains forty-seven chords; while the saraband of the third suite, which is only five lines long contains twenty-four. It is also interesting to notice that in all the movements of the whole fifth suite there are only about twelve chords which are not playable on a standard 'cello.

* The reader must distinguish between the following discussion and that on page two above. There we were concerned with the causal, historical reasons for its use; here with the teleological.

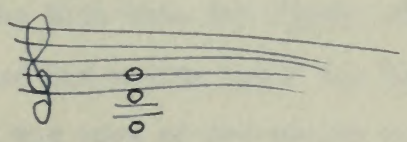
Here are some of them:



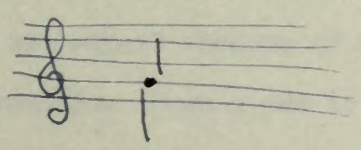
There are not such spectacular chords that the effectiveness of the suite could hinge on them, and modern editors have easily circumvented the problem of these few chords in arranging the suite for conventional accord. Surely if Bach's musical concept had impelled the use of scordatura for technical reasons, these reasons would be more in evidence. The trio for clavier, flute and violino discordato -



is even more a case in point. The piece is almost entirely without double stops and there is only one in the whole four movements that requires scordatura:



This doubled unison is used eight times:



In Biber's fourth sonata, which I choose at random, there are fourteen exclusively scordatura chords used out of a total of fifty-five chords in the composition. And of those fourteen nine are doubled unisons.

The statement that scordatura was used to aid polyphonic composition usually also entails the idea that it became adopted in the northern countries to a greater extent than in Italy because the Germanic composers were more interested in polyphonic violin pieces. But even this contention does not seem to me to be very noticeably true. Corelli treated the violin very contrapuntally, too, and some of his sonatas contain more carefully worked out fugues than any of Biber's works. The difference, though apparently present, is not as great as one might suppose. Three hundred and eighty-eight notes from Biber's sixth sonata contained 25% double stops. 555 notes from Corelli's C Major sonata had 21% double stops. In both cases the most chordal movements were chosen for the count.

Therefore it doesn't seem possible that technical manipulation was the motivating force behind scordatura. The other reason, qualitative differences ~~in~~ with the different tunings, stands up better. I believe in any case that that provides the particular baroque charm of scordatura today. Schweitzer suggests that in the Bach trio for flute, clavier and violino discordata, Bach had the violin lower its two upper strings in order to soften the tone of the violin against the flute. This may well be; such points are unprovable. But the real difficulty with this explanation is that some scordatura tunings in common use entail changes of quality so slight as to be barely perceptible. Such a one is the fifth 'cello suite, which the writer heard performed in a small room with the original tuning recently, without being able to tell by the sound whether the instrument was in scordatura or not.

If tone quality were the real objective of scordatura why wouldn't composers of the seventeenth century have singled out the particularly effective tunings and used them exclusively?

It is my opinion that scordatura was not used for any of these reasons primarily, but involves a basic attitude of the baroque mentality - a certain pleasure in concealed intricacies. The baroque personality liked intellectual challenge, but was not interested greatly in using the challenge for purposes of display. Biber's use of scordatura was much like Bach's symbolism: an important factor to the creator but not particularly conspicuous in the artistic product. It is hard for the modern man to comprehend this point of view, interested as he invariably is in effects, show, display.

Biber and Scordatura

Biber used scordatura in at least three sets of compositions. The first of these, the Harmonia Artificiosa-Ariosa, was published in Nuremberg, apparently after Biber's death, because the title page refers to him as "Quondam (former) Dapiferum et Capellae Magistrum" - positions which he held until death. It consists of seven partitas for two solo instruments, bass and cembalo. The two solo parts are varied, being sometimes for two violins, violin and viola da braccia, or for two violas d'amore.

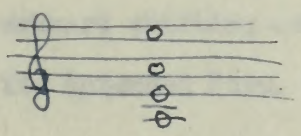
Four, according to Adler, are marked "Praeludium", two "Sonata" (adagio, presto, adagio), and one "Intrada". Since this volume is not available to the present writer, the use of scordatura in it cannot be discussed with authority or in detail. In the fourth partita he uses scordatura for the viola: Eb-Bb-Eb-Bb.

A study of the scordatura used in the mystery sonatas and in the eight sonatas of 1681, reveals all those features of baroque scordatura that have been expounded in the previous section of this paper. The volume of mystery sonatas contains sixteen works, of which only the first and last allow normal tuning, while the intervening fourteen involve fourteen different abnormal ones. This methodological approach is thoroughly characteristic of the baroque period, when a volume of works was frequently gathered around some seemingly arbitrary concept, such as Kuhnau's seven partitas in the major keys upon the notes do, re, mi, etc. The very existence of the

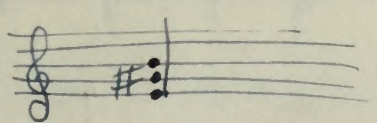
suite as a form representing the various countries testifies to this rather arbitrary logic, as does its invariable unity of key. In Biber's mystery sonatas there appears to be no logic of key choice, and no systematic order to the arrangement of tunings, but the fact that the composer set out to create a different scordatura for each piece shows the logical basis of his challenge.

That Biber did not think of scordatura primarily as a means of broadening the technical range of the instrument is clearly indicated by his fairly consistent failure to take advantage in any exhaustive sense of the scordatura adopted for each sonata. This is so important a point that it would be well to pass hastily through the sonatas in which scordatura was used and see to what extent he did take advantage of the tunings used, for the reader may disagree with my conclusions on the matter.

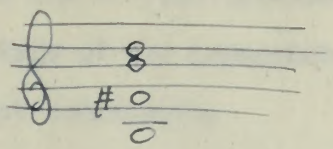
The first use of scordatura is in the second of the mystery sonatas, (page ~~8 below~~ 15 above), with this tuning:



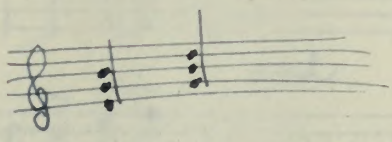
Out of almost two hundred double stops in this sonata, there are only four that could not be played on a normally tuned instrument. The following:



is used four times. In sonata three, with this tuning,

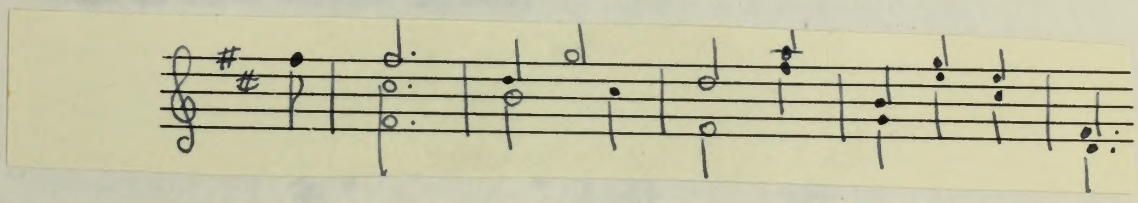


the situation is the same. These two chords are each used once,



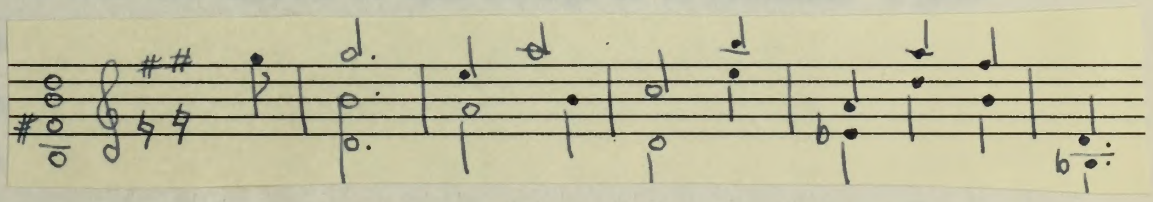
and except for several doubled unisons*, all the rest of the sonata could be managed on a standard violin. However, there are several passages that are infinitely easier with the prescribed tuning than with the conventional. The following selection will illustrate this:

Standard violin -- concert pitch



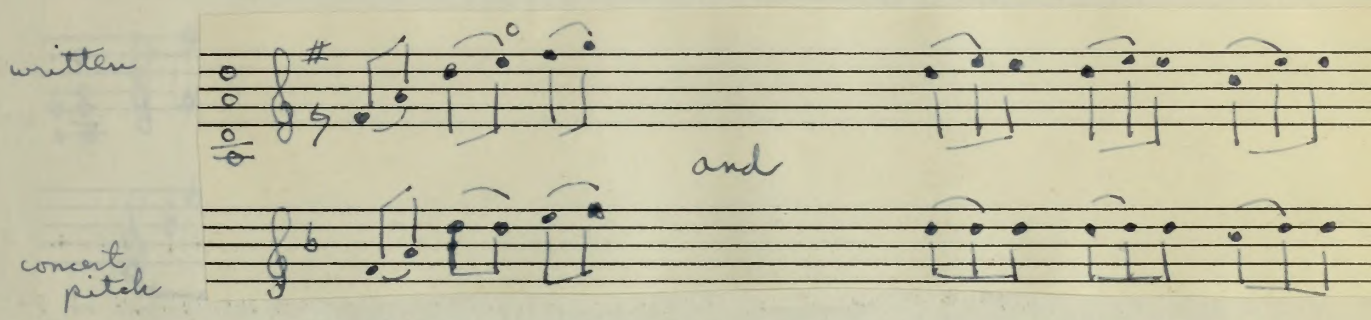
This passage requires awkward shifting and would be difficult to play smoothly; but in its intended form, it falls easily under the hand:

Biber's notation



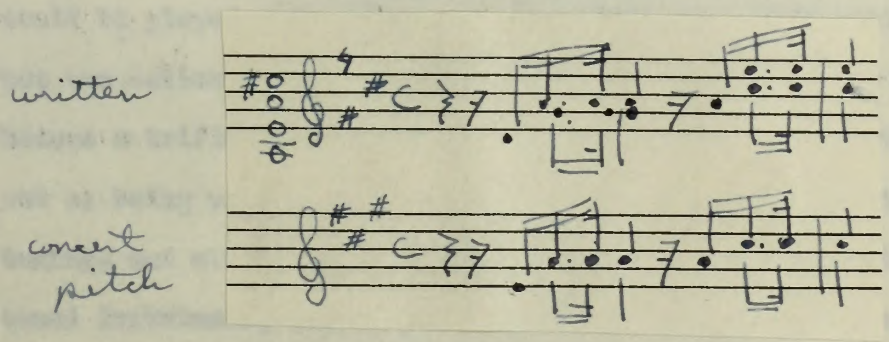
* Although the term "doubled unison" is somewhat redundant it is used in this paper to distinquish from which will always be referred to as an arpeggiated unison.

The fourth sonata (page 19 above) uses sixty-six double stops out of which some six or eight are available only with scordatura. Biber also takes advantage of the arpeggiated unison on D, which is not available without scordatura.



Considerable use is also made of the doubled unison, a device which not only Biber, but also Bach, in his scordatura compositions, seemed to find unusually attractive.

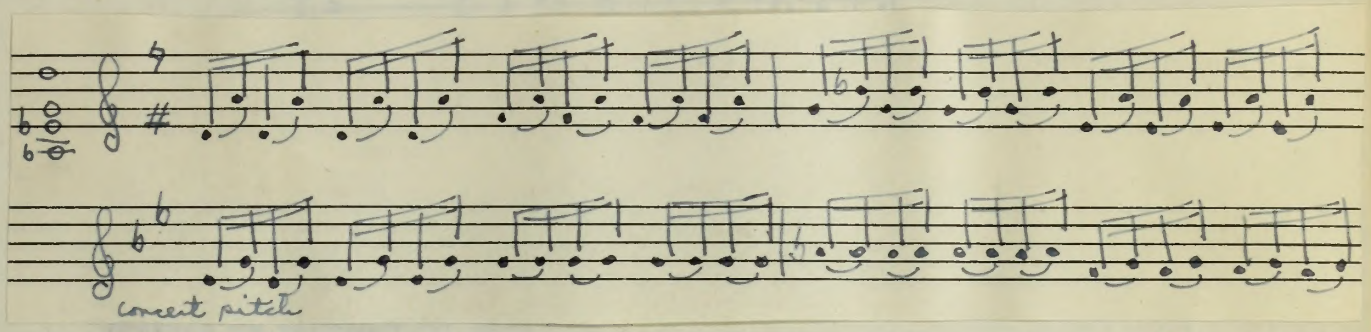
Biber's fifth sonata begins with a brave scordatura opening, based on these doubled unisons:



Here also the emphasis on open strings is in evidence. A passage such as this, beginning a sonata, can only be interpreted to mean that open strings were not regarded in Biber's day as a necessary evil, but as especially pure sound to be brought out as much as possible. But this opening, so distinctively touched with scordatura does not set the pace for the rest of the sonata, that is the scordatura is not exploited as a device

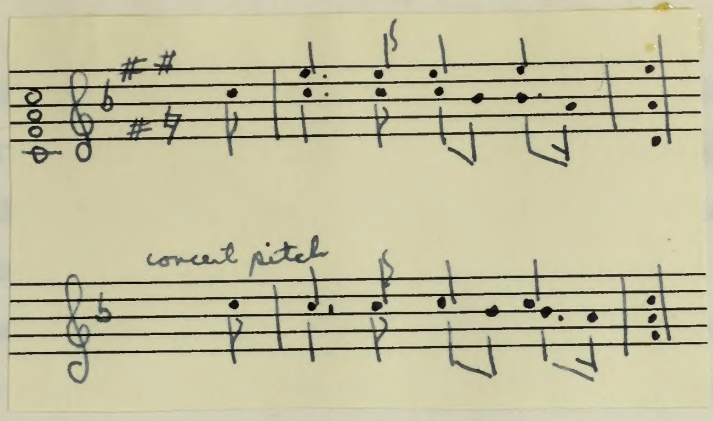
for obtaining effects not obtainable on a normally tuned violin. There are only some three chords in that category.

In sonata six (page 25 above), Biber uses the arpeggiated unison tellingly,

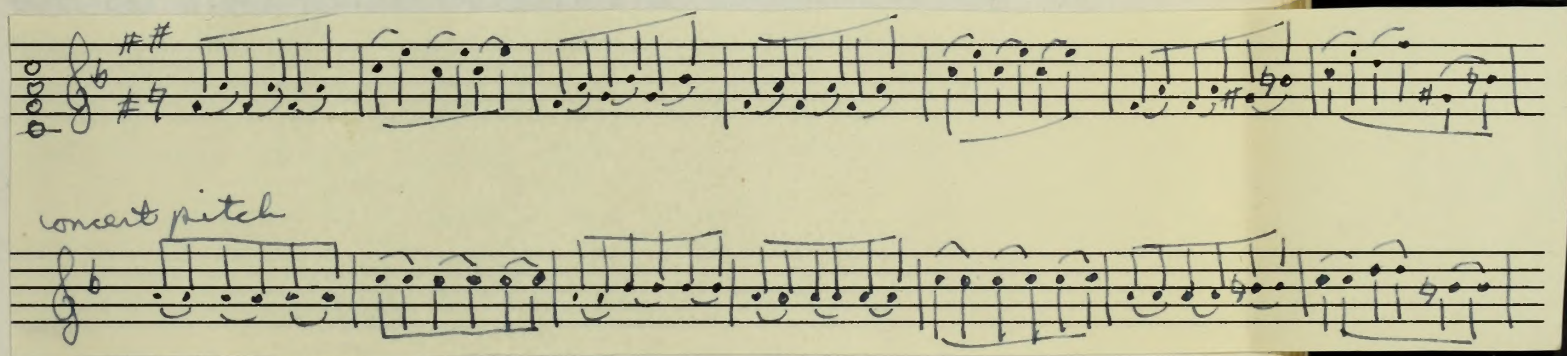


Brought into prominence here are not only the doubled unisons and the open strings, but also that singularly violinistic quality of notes sounded not by striking the fingers but by crossing the strings. Thanks to scordatura, every note in this passage is so produced. It is true that these two bars could be played with ease, note for note, on a GDAE violin, but the delicate flavor of them would be lost, and they would become a trifle boorish and senseless. This whole sonata stands out as being very well integrated with the sombre quality of its tuning, and although most of it is playable on a conventionally tuned instrument, the effect would be to replace the tranquil sombreness of the original with something awkward and forced. Here the open string effects sound beautiful even to modern ears.

Sonata seven is the first one that seems deliberately to make use of scordatura. Not only is there a distinctly scordatura opening,

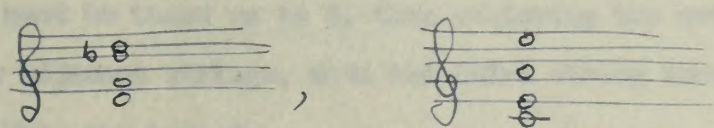


and a considerable use of doubled unisons - in this sonata thirteen in all - but there is this interesting passage based wholely on arpeggiated unisons:



Previous uses of scordatura by Biber were sufficiently haphazard to be considered simply the result of a normal working out of the composers problems within the framework of a specific scordatura, but this example which is carried through a complete passacaglia variation, implies a real attempt to utilize the distinctive possibilities within the scordatura.

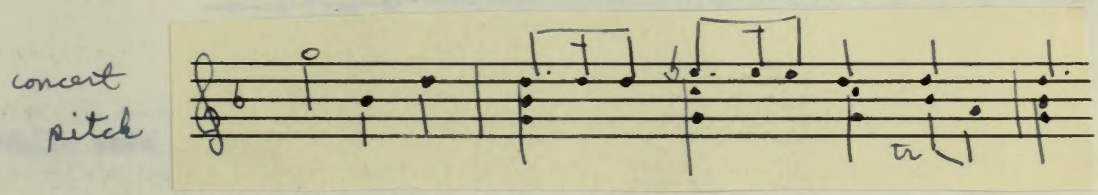
Sonatas eight and nine



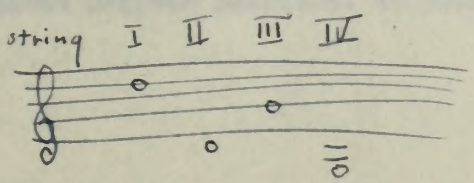
however, revert to the former type; there is only a sprinkling

of distinctly scordatura chords and effects, and, though a certain awkwardness would result, there is therefore a perfect technical accessibility of these sonatas to rendition on a non-scordatura instrument.

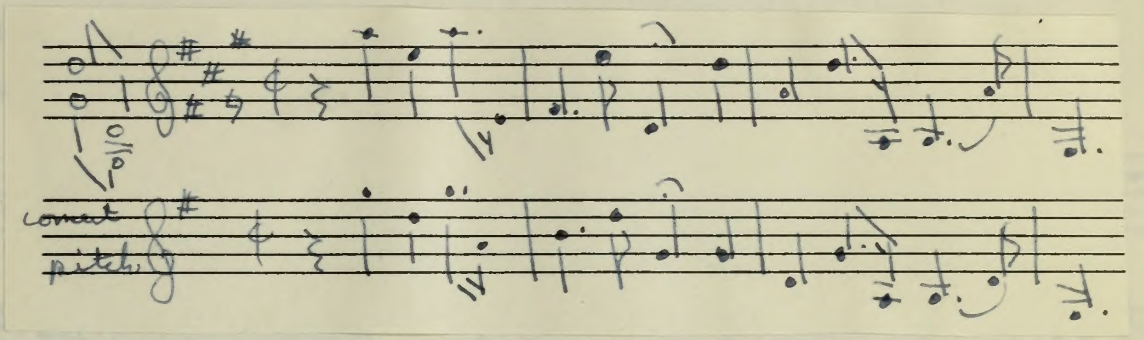
Number ten (page 28 above) is in a different category; in this sonata, in which the only change is to bring the E string down to D, there are a total of thirty-eight normally unobtainable chords, yet the total number of chords involving the E string is seventy-eight. This might lead one to suppose that Biber was deliberately trying to see how many chords he could obtain with this tuning, but that is probably not the case. It is simply that in following the path of least resistance he used the open E string (tuned down) that many times. The sonata abounds in passages of this nature:



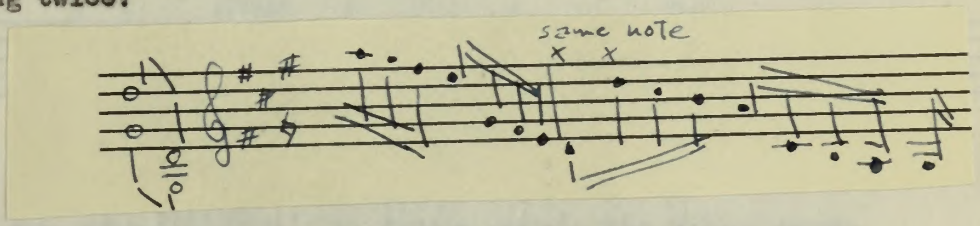
Sonata number eleven, the resurrection sonata, contains the most spectacular use of scordatura of any in the set. The second, or "A", String is to be tuned down to D while the D String must be tuned up to G, thus achieving two sets of octaves on adjacent strings, with the third string tuned a fourth higher than the second:



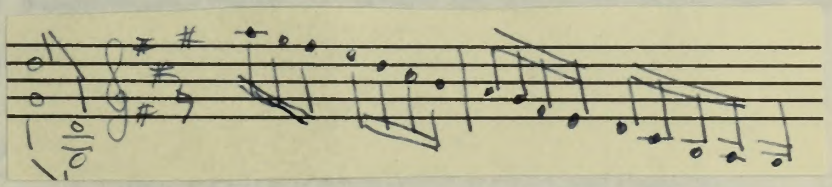
This tuning is one which creates a strong coloristic effect, permitting the lower pair of strings to echo passages of the upper pair, and allowing a maximum of resonance.



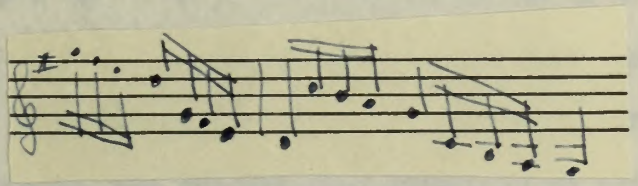
This type of scordatura, in which a "lower" string is "higher", is a constant surprise to the performer. The following passage sounds as a descending scale of G major, with G in the middle sounding twice:



While this passage, which looks like a descending scale -



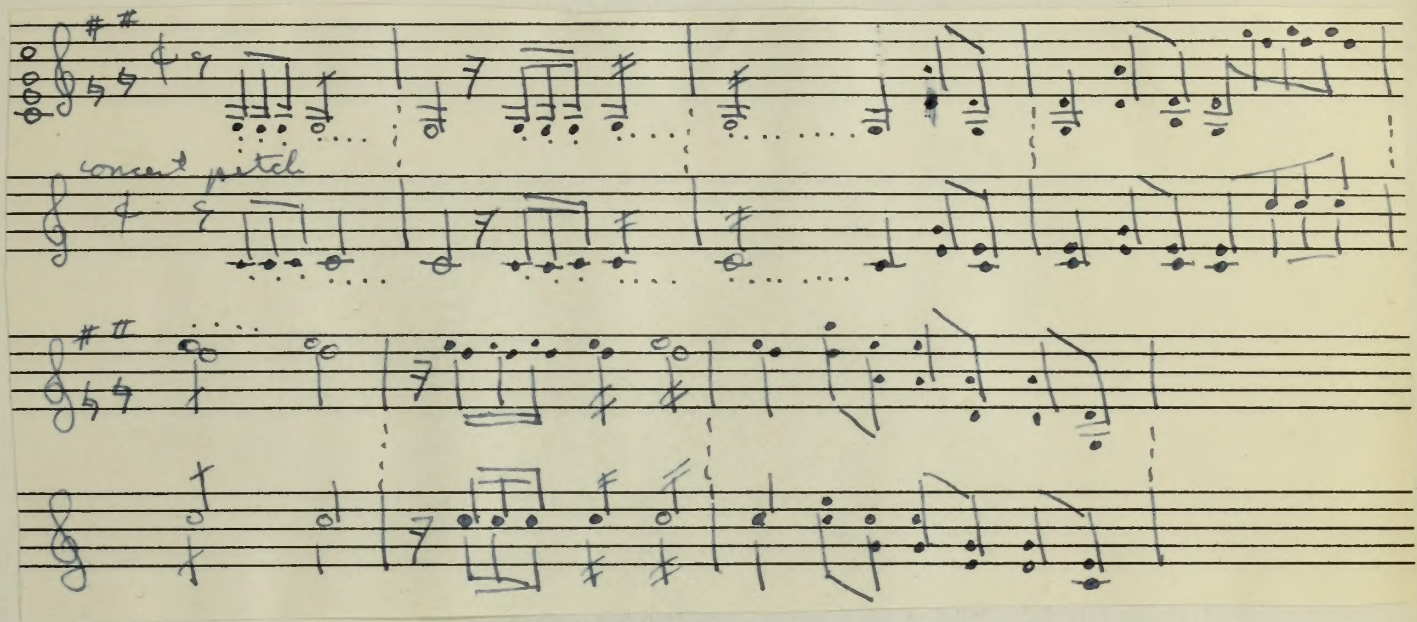
actually sounds like this:



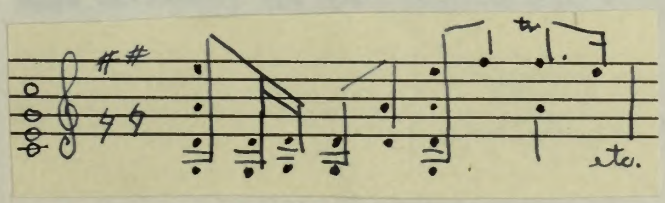
This tuning also makes octaves possible, if played as fifths,

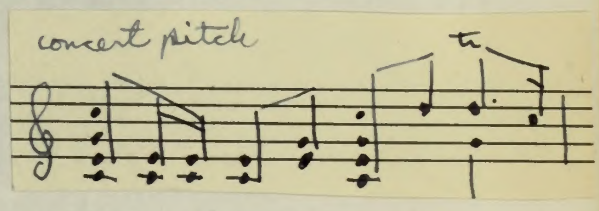
and Biber uses this to double the chorale theme in the second movement.

In the twelth sonata, Biber makes very definite use of his open strings tuned to the chord of C major. By depending mostly on the unstopped strings he creates a fanfare effect.



And in the Aria Tubicinum, or "brass aria", the second movement, he achieves a triumphal march in the following way, by again using predominantly open strings:

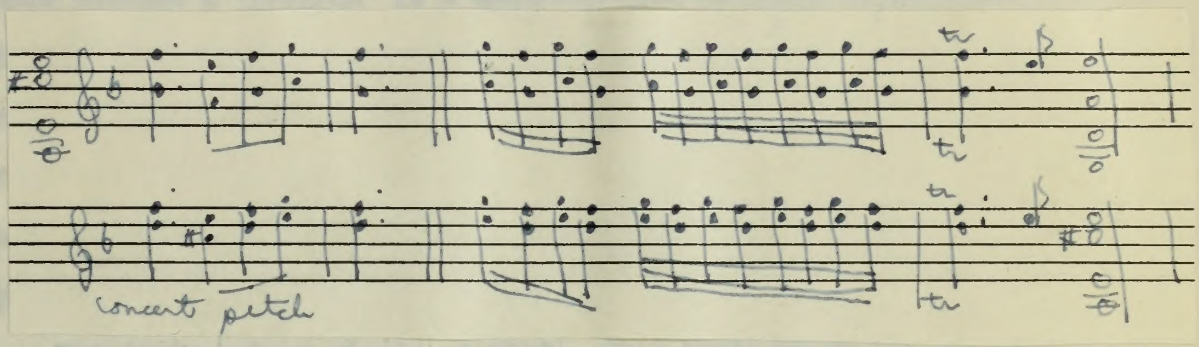




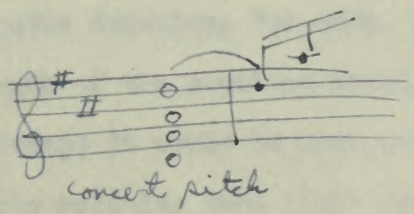
Today one might well complain that these effects are over simple, ubt still they constitute an interesting application of the scordatura principle, and suggest that Biber did at least on a few occasions think of scordatura as an end in itself, and something to be worked with creatively.

The thirteenth sonata is interesting because Biber has arranged his strings so that perfect fifths produce thirds on the first and second strings and sixths on the second and

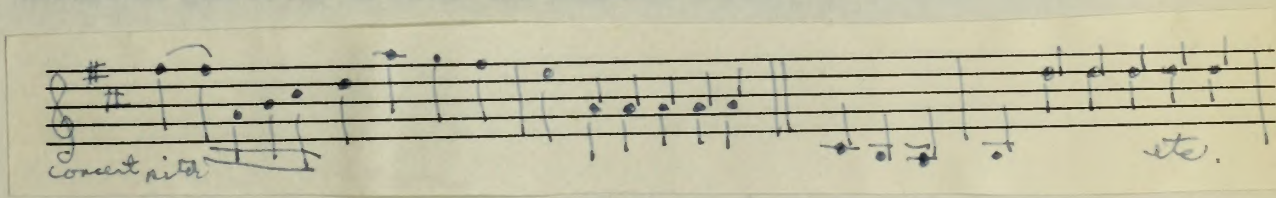
third strings. And Biber takes advantage of the opportunity to sound runs and trills in thirds and sixths, which undoubtedly would be very difficult on a normally tuned instrument.



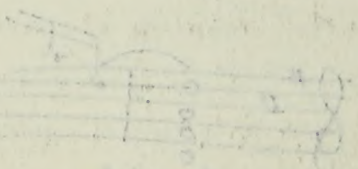
The fourteenth sonata, though it starts with this chord -



doesn't use scordatura extensively except for doubled unisons of which there are considerable. There is a sixteen bar passage involving frequent repetitions of this pattern:



Number fifteen makes little use of the device.



Biber and Program Music

Considered basically, program music is as old as music itself; music without a "program" is a contradiction in terms - like food without nourishment. Greek drama was programatic; the madrigal was founded on the inter-relationship of idea and sound; even impromptu primitive wailings are evocations of some emotional concept. Therefore, unless we arbitrarily delimit the scope of the term "program" it remains largely meaningless, a tautology.

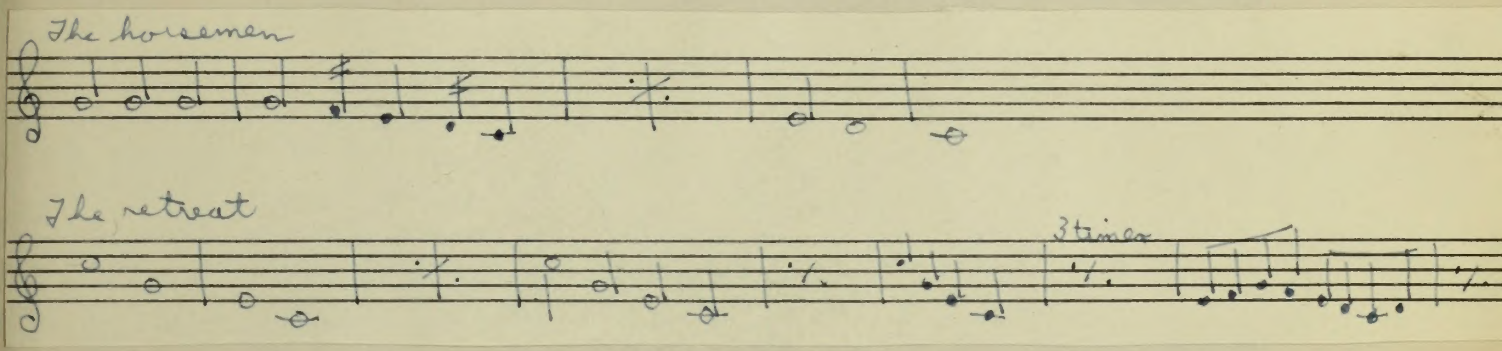
But it is not as simple as that. When Haydn wrote his string quartet, "The Last Seven Words of Christ" His problem, according to his own testimony, was purely to maintain interest through seven adagios, each of ten minutes duration. The work, however, is regarded programatic on the strength of the captions themselves. Where is one to draw the line? Perhaps it would be most useful to regard program music as an entirely relative term (like democracy) which exists in varying degrees of concentration from precise verism such as Honegger's "Pacific 231" to abstract compositions like the late Beethoven quartets, in which the composer himslef is unaware of his program.

On this basis the question of program music would always involve the question, what kind of program, and how much program. Perhaps one could encompass all music in a programatic analysis, breaking it down into the various devices through which the composer conveys his message - the analogy of musical and actual sounds (e.g. Richard Strauss); the analogy of sounds and feelings, which being equal to the same thing are equal to each other (Wagner);

melodies used as symbols (Bach,) etc.

To ask whether Biber's music is programatic is in a way almost a naive question. It depends on what is meant, and the only answer is a detailed one.

Fifty years before Biber was born, William Byrd had already written his "Battel," a highly descriptive clavier piece:



And not long after Biber's time Kuhnau was to write his Biblical sonatas, in which David's stone whishing towards Goliath's temple was represented by a clavier glissando. Bach's "Capriccio sopra la Lontananza del suo Fratello Dilettissimo," written in the year of Biber's death, Vivaldi's "Seasons," and Telemann's "Sea Suite" are other examples of Baroque program music.

But more important, Johann Jacob Froberger, court organist to Emperor Ferdinand III of Austria, had adopted Gaultier's custom of writing clavier suites with a programatic flavor. Thus his "Lamento sopra la dolorosa perdita della Real Mista di Ferdinando IV, re de Romani" forms the opening movement of his suite number twelve, and a "Plainte a Londres pour passer la Melancholie, laquelle se joue lentement avec discretion" is in the thirtieth. It is significant that the titles of these suites seem to apply to the first movement only, which in each of the above cases is

followed by a courante, gigue, and sarabande (the saraband at this time coming last.) The lament for Ferdinand ends with an ascending scale which is taken to represent the ascent to heaven. Froberger left the service of the emperor in 1657 (when Biber was thirteen) and travelled in western Europe (precluding the possibility of direct association.)

Other examples of Austrian keyboard music with programatic propensities, all antedating Biber, are mentioned by Bukofzer.* Wolfgang Ebner wrote a set of thirty-six variations on a theme of Ferdinand III in which the composer's age is indicated by the number of variations (1648.) Pogliotti, an Italian harpsichord virtuoso employed in the court at Vienna, based some of his suite movements on bird calls and animal sounds. He even depicted in a series of dance movements the Hungarian Rebellion (1672) with a trial, a decapitation, and bells tolling at the end; and he wrote an aria with twenty-three variations representing various national customs. Johann Kasper Kerll (1672-1693) also used bird calls as thematic material. And Carlo Farina of Dresden published in 1627 his "Capriccio Stravagante" for violin, at the end of which he describes methods for imitating the sounds of dogs, hens, a soldier's fife, and a cat fight. For the cat fight the performer is advised to pull the finger down slowly and meanwhile work the bow up and down furiously sometimes in front of and sometimes behind the the bridge to create scratching and biting sounds.

All in all, then, it is clear that various types of programatic devices were known in southern Germany and Austria by Biber's time-descriptive tricks, mood music, number symbolism, dedications and historical narratives. Besides this, the chorale concertato, predecessor of the cantata, in which the chorale melody was used as

* See Bibliography

a cantus firmus, had become prominent throughout Protestant Germany, and Scheidt, the great central German organist who died when Biber was fifteen, had applied this chorale technique to organ works.

* * *

In discussing the possibilities of programatic content in Biber's mystery sonatas, we must first acknowledge the considerable shortcoming that the original manuscript or photographic facsimiles of it have not been available; this study is made on the basis of the Denkmäler edition of 1905, and on the comments of various writers who may also be relying on this same source. This fact is unfortunate because there are some possible discrepancies in the volume which an examination of the original might clarify.

Bearing in mind that there are sixteen sonatas in the set, and that each one is preceded by an engraving of a Biblical scene (examples on page 15, 17, 23, and 28) let us turn to the title page, which is reproduced in facsimile by the Denkmäler (see next page.) A free translation of this document follows.*

MOST HIGH AND MOST REVEREND PRINCIPAL,
KING, MOST CLEMENT KING,

The harmony of the sun and the spotlessly sacred moon I humbly dedicate TO YOU, the third light, whom I see shining from all sides luminously. A son of truly sacred ruddiness, you defend the virgin honor of the Virgin Mother; for that reason, as wages, along with your brother Christ you suckle the heavenly liquor of the Mother Mary's gratuitous milk. The first letter of whose beautiful name, let alone breast, is shared by you, For Mary

* Translated by the writer with the assistance of Mr. Malcolm E. Agnew, department of classical languages, Boston University. The Latin dedication is to Maximilian Gandolphus, Archbishop of Salzburg.

CELSISSIME AC REVERENDISSIME PRINCEPS, DOMINE, DOMINE CLEMENTISSIME

Harmoniam Soli Iustitiæ et Lunæ sine macula consecratam TIBI tertiæ Luci, quam ab vtroq; Diuino sumpsisti Lumine humilimè dedico. Filius enim dignitate sacrã rutilans, Matris Virgineum Virgo defendis honorem; Ideò pro mercede à Filio Christo cælesti manna nutriris, à Matre Maria gratiis lactaris. Quæ primam de suo beatissimo Nomine sumens Litteram, primam Tuo Celsissimo Nomini imposuit. Sii Maria Maximilianum condecorauit. Quatuor Chordis Chelym meam instructum quindecim vicibus discordatam diuersisquè Sonatis, Præludijs, Allemandis, Courant:, Saraband: Arijs, Ciaconã, Variationib. &c. Vna cum Basso continuo sedulã cum diligentiâ et secundum possibilitatem magno artifitio elaboratam reperies. Causam si numen scire velis enucleabo: Hæc omnia Honori XV Sacrorum Mysteriorum consecraui, quem cum Tu seruentissimè promoueas.

CELSITVE.is TVÆ

TIBI flexo poplite dedico.

Humilimus Seruus
Henr. Ignat Franciscus Biber.

decorates Maximilian. You find here with the four strings of the lyre tuned in fifteen different ways according to my instructions, various sonatas, preludes, allemandes, courants, sarabands, airs, a chaconne, variations, etc. together with a sedulous basso continuo, all elaborated with diligence and according to the possibilities of great artifice. Because in case you wish to know I will clear away the veil: These all are consecrated to the honor of the fifteen Sacred Mysteries which you fervently promote. HIGHEST ONE I dedicate these TO YOU with bended knee.

Your humble servant
Henr. Ignat Franciscus Biber.

The usual interpretation put on the volume is that the Biblical picture accompanying each sonata provides the programatic subject for that composition. There is no title other than that, except the usual movement name such as Sonata, Aria, Praeludium, etc. Thus Dr. Erwin Luntz, who wrote the foreword of the Denkmäler edition refers to them as "Programmbilder." The difficulty with this interpretation is that the dedication doesn't mention the existence of pictures at all, which is quite strange, for such dedications and descriptive titles in that day usually made reference to anything of interest within the volume. In this instance the use of scordatura was mentioned, as was the figured bass, the titles of most of the movements, the technical demands of the music, the dedication to Maximilian, and the consecration to the Biblical mysteries. Is it reasonable, then, to suppose that mention of something as clearly unusual as pictures accompanying each sonata, would have been neglected in the title, particularly if they provided inspirational material for the music? Biber's words at the end of the dedication increase our scepticism about these pictures. 'In case you wish to know I will tell the secret, clear away the veil' (The Latin is somewhat ambiguous: "Causam si numen scire velis enucleabo: Haec omnia Honori XV Sacrorum Mysteriorum consecravi..") The obvious question is this, if the pictures were

attached in the volume to begin with,wherein lay the secret to be revealed? Biblical subjects were familiar enough at that time as now; all would have been clear. Therefore the suspicion is unavoidable that the pictures were added later, perhaps by Maximilian himself, after Biber had presented him the sonatas. This is where a careful examination of the original would be beneficial. Just how and where were the etchings attached to the manuscript?

An additional discrepancy stems from the fact that Biber mentions fifteen mysteries, yet there are sixteen compositions in the volume. It is not impossible that Biber, if he was endeavoring to be clandestine, might have added a sixteenth work with some symbolic intent, but there are factors which lead one to doubt it. If we examine the list of movements mentioned by the composer we find reference to sonatas, preludes, courants, sarabands, airs, variations, and a chaconne, in the singular, there being only the one in the set. An examination of the actual movements shows that Biber has neglected to mention several doubles, one intrada, three gigues, and a canzone. He has also neglected to mention the last sonata, which is a passagaglia. That the composer might have relegated an occasional double, intrada, gigue to an "etc." is understandable; it is difficult to believe that he would have done so with this passagaglia. It is an unusual work, written for violin unaccompanied, with much greater technical demands than the other sonatas, based on a descending tetrachord repeated sixty-four times. Furthermore, Biber says "Una cum basso continuo sedula," which seems to mean each or all, and yet this sonata has no basso continuo. A third difficulty is

presented by the picture accompanying this sixteenth sonata. The first fifteen are all well known Biblical subjects, but the sixteenth depicts an adolescent angel and a young child walking hand in hand. Not only the subject matter, but also the artistic style of the first fifteen engravings and the sixteenth are extremely different. The lines in the former are sharply etched, severe, and consist prominently of lines that are either horizontal or vertical; the latter is devoid of horizontal or or vertical lines, shows hills in the background in aerial perspective, is sentimental and billowy in general concept. The first fifteen pictures, in other words, are clearly seventeenth century in origin, but the last one could easily date from a much later period, even, so far as the writer can perceive, from the nineteenth century.

In the light of these various circumstances, it seems valid to suggest, at least as a tentative hypothesis, that there were originally fifteen sonatas in this set and that the sixteenth sonata as well as the so-called program pictures were added subsequently.

What did Biber's phrase, "XV Sacrorum Mysteriorum" convey to his lord? Was Maximilian expected to deduce purely from the musical content the sacred connotation of each sonata? Apparently not. For within the liturgy of both the Catholic and Episcopal churches even today one finds reference to fifteen "mysteries," which refer to fifteen specific Biblical incidents. And these fifteen correspond precisely and consecutively to the fifteen seventeenth century engravings attached to Biber's volume. They are subdivided into three groups, the five joyful, the five sorrow-

ful, and the five glorious mysteries.

The five joyful mysteries

1) Luke i, 26-38. The angel Gabriel tells Mary of the forthcoming Jesus. The annunciation

2) Luke i, 39-56. Mary visits a friend, Elisabeth, who is also pregnant, and delivers a tribute to God known as the Magnificat.

3) Luke ii, ~~22-22~~ 4-20. Christ is born.

4) Luke ii, 22-28. Christ is brought to a temple while a baby, and a blood sacrifice offered.

5) Luke ii, 41-52. The twelve-year-old Christ talks to scholars in a temple.

The five sorrowful mysteries

6) Matthew xxvi, 36-46. Christ's misgivings at Gethsemane before his death. The agony.

7) Luke xxiix, 63-65. He is blindfolded, beaten, and blasphemed. The scourging.

8) Matthew xxvii, 27-30. ...and crowned with thorns and spat on by soldiers.

9) John xix, 17. ...and carries his own cross.

10) Mark XV, 23-38. The Crucifixion.

The five glorious mysteries

11) Matthewxxvii, 1-10. The resurrection

12) Luke xxiv, 50-51. The assension of Christ

13) Acts ii, 1-4. The "Holy Ghost" appears to the apostles.

14) The ascension of Mary.

15) The crowning of Mary.

If Biber 's sonatas have a programatic content, it is on these incidents that they would have been based. This is so whether the inclusion of pictures was Biber's idea or not, for in his introduction to the volume the composer clearly consecrated the sonatas to the mysteries and not to pictures of the mysteries.

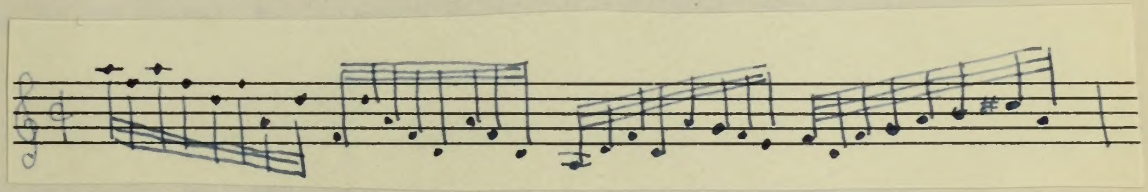
Since the mysteries are divided into three very distinct groups, one might expect to find major over-all differences between the sonatas in each group. This proves not to be strikingly true.

Sonata 1	praeludium, variatio, finale
2	sonata, presto, allemande, gigue, sarabande, double
3	sonata, courante, double, adagio
4	ciacona
5	praeludium, aria, variatio
6	Lamento, (adagio), adagio
7	allemande, variatio, sarabande, variatio
8	sonata, presto, gigue, double, double 2
9	sonata, courante, double, finale
10	praeludium, aria, variatio
11	sonata, Surrexit Christus Hodie, adagio
12	intrada, aria tubicinum, allemande, courante, double
13	sonata, gavotte, gigue, sarabande
14	(untitled movement), aria
15	sonata, aria, canzone, sarabande

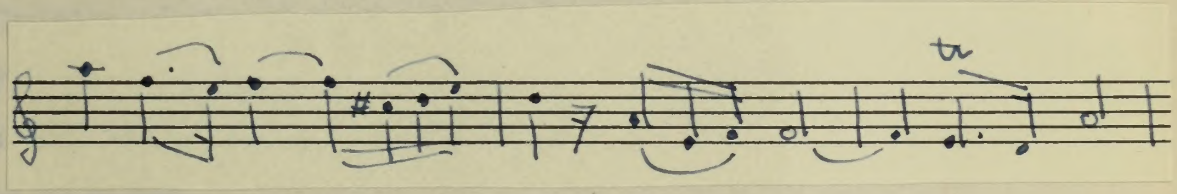
Allemandes, courants, and gigues seem to be scattered more or less at random among the three groups (thus breaking down the theoretical distinction between sonata da camera and sonata da chiesa) and are intermingled freely with slow-fast indications. It is odd to find Christ bearing his cross to the tune of a courante, and the Holy Ghost involved in a Gavotte and a gigue, but this need not surprise us, as such inconsistencies were common in that day. We have seen that Froberger did a similar thing in following his lament for Ferdinand IV with a courante, gigue, and sarabande. Even as late as Couperin it was customary to intermingle a tombeau with a pot-pouri of other movements.

Out of the fifteen sonatas, there are only three whose movement titles suggest a possible programatic connotation - the sixth with its Lamento, the resurrection hymn of the eleventh, and the AriaTubicinum of number ~~thirteen~~ twelve. except for these clues, any specific programatic content in Biber's sonatas must remain hypothetical. In the following pages we will pass more of less hastily through these fifteen sonatas in an effort to locate striking features that may set the work, or a movement of it, apart, and might reasonably be explained in terms of programatic intentions.

Sonata 1) Annunciation. Twelve out of the twenty-five measures in the first movement consist of running passages which might suggest the flitting descent of an angel:



These passages go as high as E3, but always end low on the G string. In between there are grand wisps of melody:



It is a majestic movement, and might well have been intended to convey the spirit of the annunciation.

Sonata 2) the Visitation. The Presto in the opening movement suggests a canon at the fourth, which might symbolize Mary and Elizabeth conversing (see page fifteen.) The canon is not worked out with exactitude, but it is the only occasion in the entire volume

where there is even this suggestion of one. The two voices are maintained by the violin throughout the movement. Rests are invariably indicated when one of the two voices is silent, a detail that doesn't generally concern Biber.

Sonata 3) Birth of Christ. No programatic content observed

Sonata 4) Presentation. A ciacona in which the bass theme is stated thirteen times. Does the number thirteen have any significance in Christ's infancy?

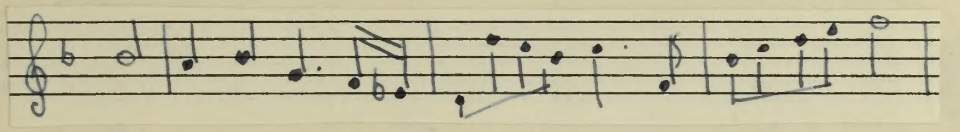
Sonata 5) Twelve-year-old at the temple. Inconclusive.

Sonata 6) Agony. The general appearance suggests the existence of a program; sudden changes of tempo and mood seem to correspond to a development of ideas or situations, the sonata is dramatic and continuous. For the sake of experiment we could construct a hypothetical program for the sonata. Christ's suffering, his fear and trembling, a prayer, the return of strength, and at the end Christ's echoing of God's word. Such an approach, though it may yield not incredible results, is beyond the possibility of scientific proof, and necessarily consists of an ex post facto process of reasoning.

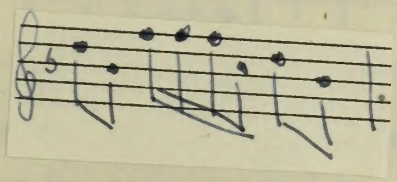
Sonata 7) No programatic associations

Sonata 8) Crowning with thorns. A program is suggested by the unusual form of the first movement. It begins with an adagio, stating

this theme:

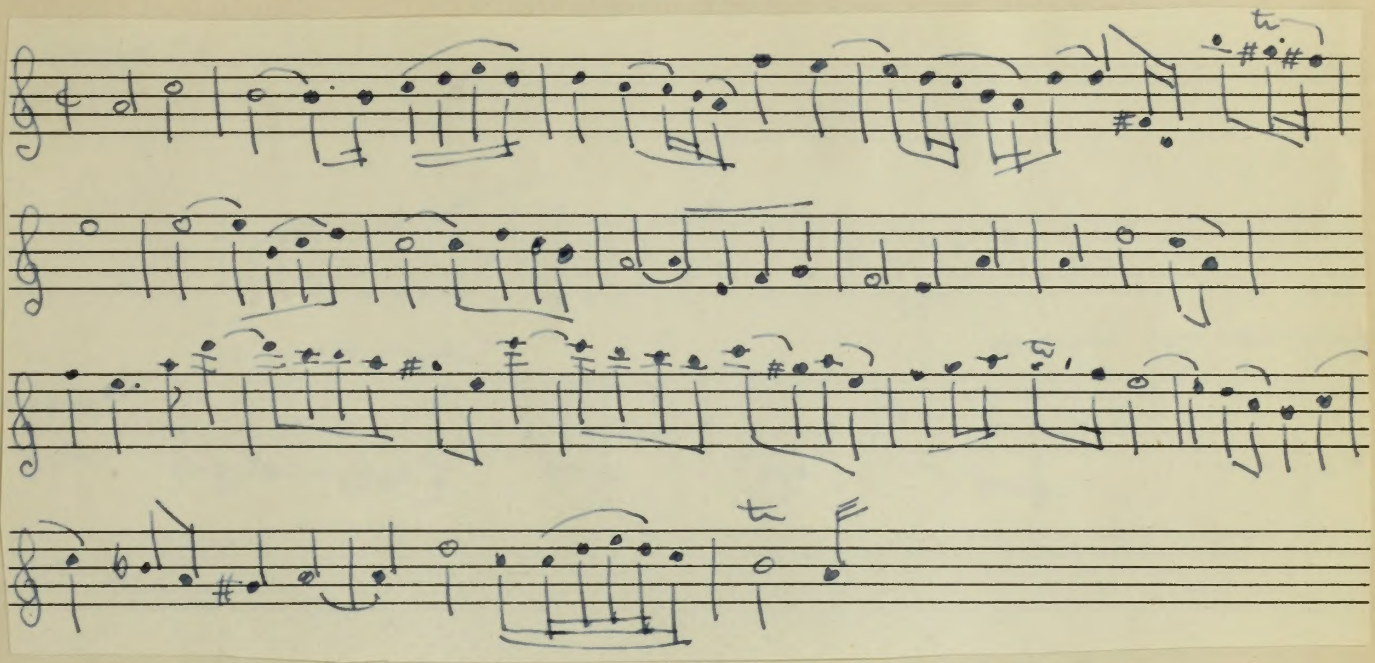


After ten bars the theme is repeated an octave higher (which is unusual as a Baroque effect.) There then follows a presto which uses ~~xxx~~ the following pattern as a prominent motif:



It is presumptuous to declare that this pattern represents the thorns, because such jagged figures are common in Biber's music, yet, with various changes it occurs nineteen times in the course of the movement. Then the original adagio returns in the high register.

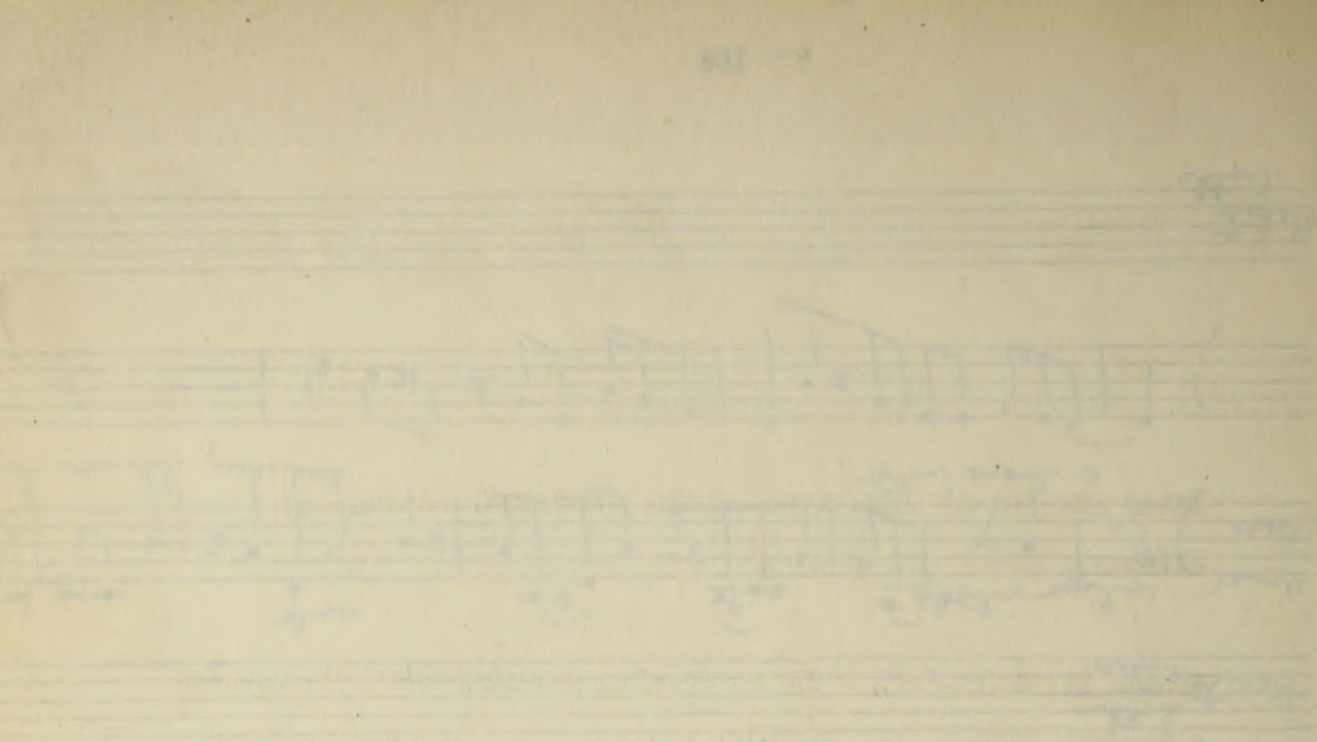
Sonata 9) Carrying of cross. The opening of this sonata, with its sustained theme rising to height and then descending seems unusually inspired; it suggests the unendurable weight of the cross, and has a distinctly romantic climax:

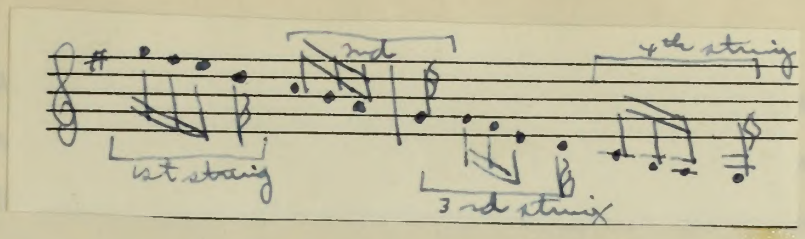


There follows a tirade of thirty-second notes, and then a peculiar shift to triplets for the last two measures.

Sonata 10) Crucifixion. Paul Nettl regards the dotted rhythm (page twenty-eight) as symbolizing the pain of Christ, and certainly the movement is preoccupied with that motif. But when he states that the following "contemplative" aria fills the function of a chorale, one may well wonder, because the aria does not seem in the least contemplative (page twenty-nine.)

Sonata 11) Resurrection. Because of the inclusion of the hymn, "Surrexit Christus Hodie," this sonata may be regarded as being conclusively programatic. Besides the hymn, Biber calls for the tuning of the strings into a pair of octaves, which produces an echoing, tomb-like atmosphere. Descending cascades of sound resound all over the instrument, while the unused strings reverberate sympathetically. The effect must be heard to be believed:



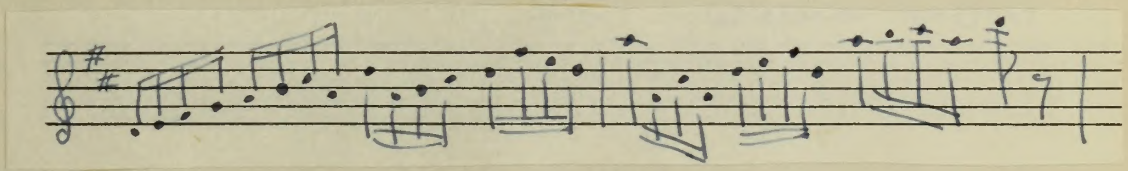


Biber adds to the multi-echo of the scordatura by means of alternate fortes and pianos.

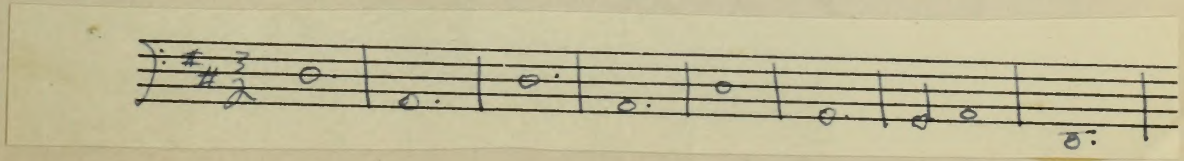
Sonata 12) Ascension. In the opening Intrada, Biber has created a trumpet fanfare with the open strings tuned to C major. There follows a rather majestic march, entitled "Aria Tubicinium," or, as it could be freely translated, brass aria. Although music is not specifically mentioned in the Biblical accounts of Christ's leave-taking, such an association is frequently made, and this sonata, therefore, is one of the more convincing evidences of Biber's programatic objectives.

Sonata 13)

Sonata 14) Assumption of Mary. At the end of the first section (measures five and six) there is this ascending figure:



The opening sonata movement is followed by a passacaglia with thirty-four statements of the bass:



The existence of the passacaglia is not mentioned by the composer, but instead it is broken down into two arias and a gigue, with the basso ostinato continuing through the three movements to the very end of the sonata. At the conclusion, the last six bars of the bass theme hang over after the violin has ended. Could Biber be spelling M-A for Mary (M for die Mitte , because the first note is in the middle of the staff?)

Sonata 15) No inferences.

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Findings and Conclusions

Under the tutelage of Paul Hindemith, a concert was given at Yale University several years ago, in which all the sonatas of Biber were performed in scordatura on one program. In order to accomplish this (and perhaps to accentuate the oddity of Biber's idea) Hindemith had a table placed on the stage, a dozen violins on it having been prepared in advance, with strings substituted * where necessary. He used a double bass for the basso continuo, and has, according to my informant, composed a realization of the clavier part which is far superior to that of the Denkmäler.

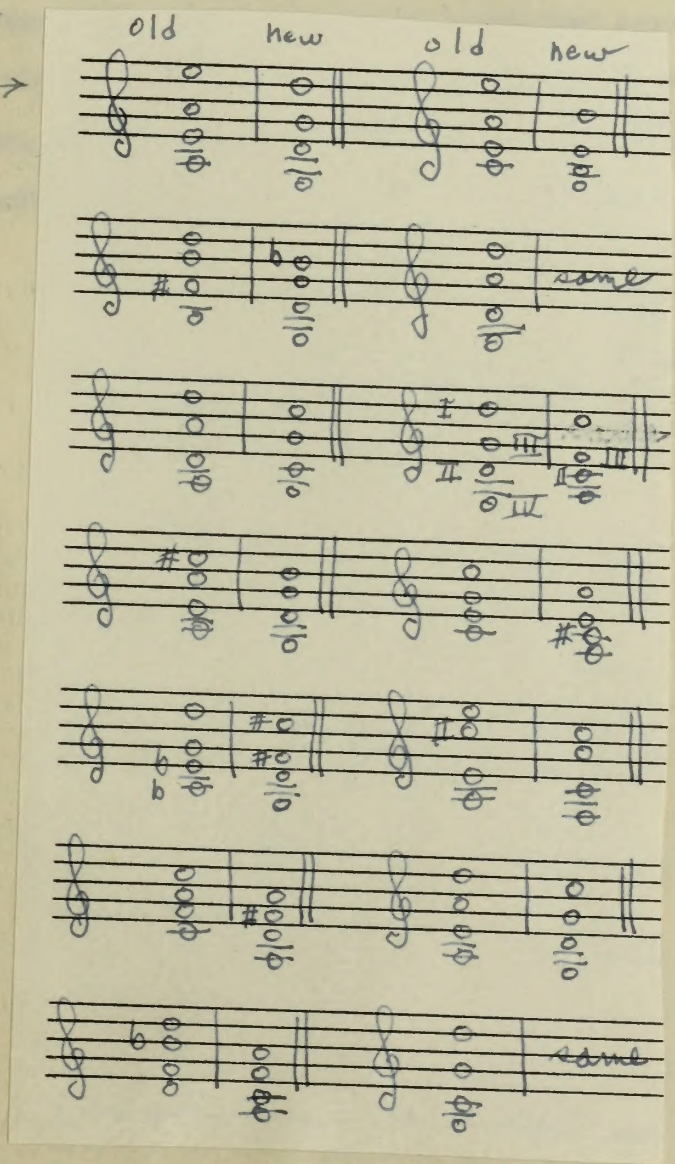
But here lies the dilemma of Biber's music. Unquestionably it is worthy of performance, but scordatura, which gives it its particular tang, is also a grave obstacle. To remove the scordatura is to destroy the glamour of the music; to persist in it means that performance is feasible only under rare, and academic, circumstances.

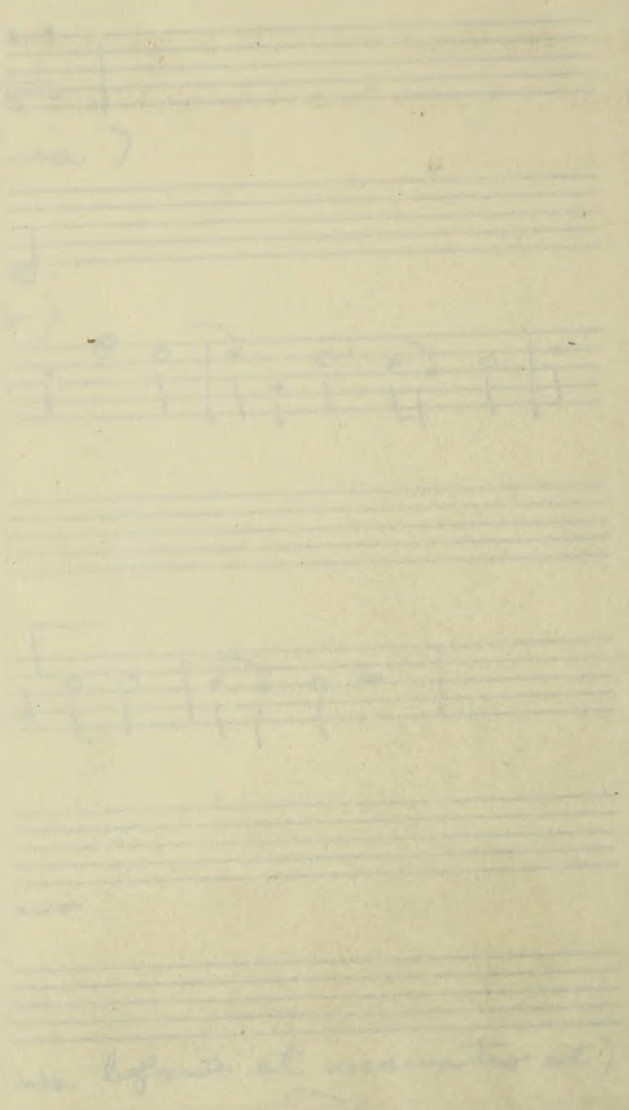
Is there no compromise, whereby these sonatas may be published in toto, in a form playable by any adventursome violinist, without danger to his strings? I believe that there is.

It is inconceivable that Biber expected the player, in the manner of Hindemith, to remove a string and replace it with another one. This would have been too complicated a procedure then as it i s now, especially in terms of rehearsals and preparation necessary for a performance. Therefore it seems certain that in Biber's time the strings on a violin were loose enough so that they could be raised as much as a fifth without breaking, whereas today strings are tightened practically to their tensile limit.

* e. g. Replacing the "G" string with a second "D" in certain cases.

This being the case, an arrangement in which strings were lowered into the right relationship instead of raised would at the same time solve the problem of the modern instrument and probably achieve a tone quality approximating a Baroque violin. The key would have to be changed. Here are the tunings that I suggest:





Only the eleventh sonata fits in poorly with this scheme. The A string cannot be lowered much below the D to which Biber assigned it. There is therefore no alternative but to raise the D string at least the minor third to F, and lower the A string to middle C, where it still sounds but will not take much pressure. In the seventh and eighth I also recommend raising the G string to A in order to avoid lowering the E string more than a fifth.

I propose that these sonatas be published according to this plan, in which case, though they will perhaps never achieve wide popularity, they will exist in a state eminently performable under chamber conditions.

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